FIG. 1

FIG. 2

INKJET TYPE RECORDING APPARATUS

FIG. 3

RECORDING HEAD — 62

HEAD CONTROLLING UNIT — 33

IB

DECU — 41

RECEIVING BUFFER UNIT — 42

INTERFACE UNIT — 27

ASIC — 4

RAM — 22

MPU — 24

ROM — 21

LOCAL MEMORY — 29

SB

LB

10

INFORMATION PROCESSING APPARATUS — 200

FIG. 4

FIG. 5

IB

SB

41

DECU

S-DMA
CONTROLLER —411

I-DMA
CONTROLLER

415

412

DEVELOPMENT PROCESSING CONTROLLER

DECODE CIRCUIT —28

LINE BUFFER —281

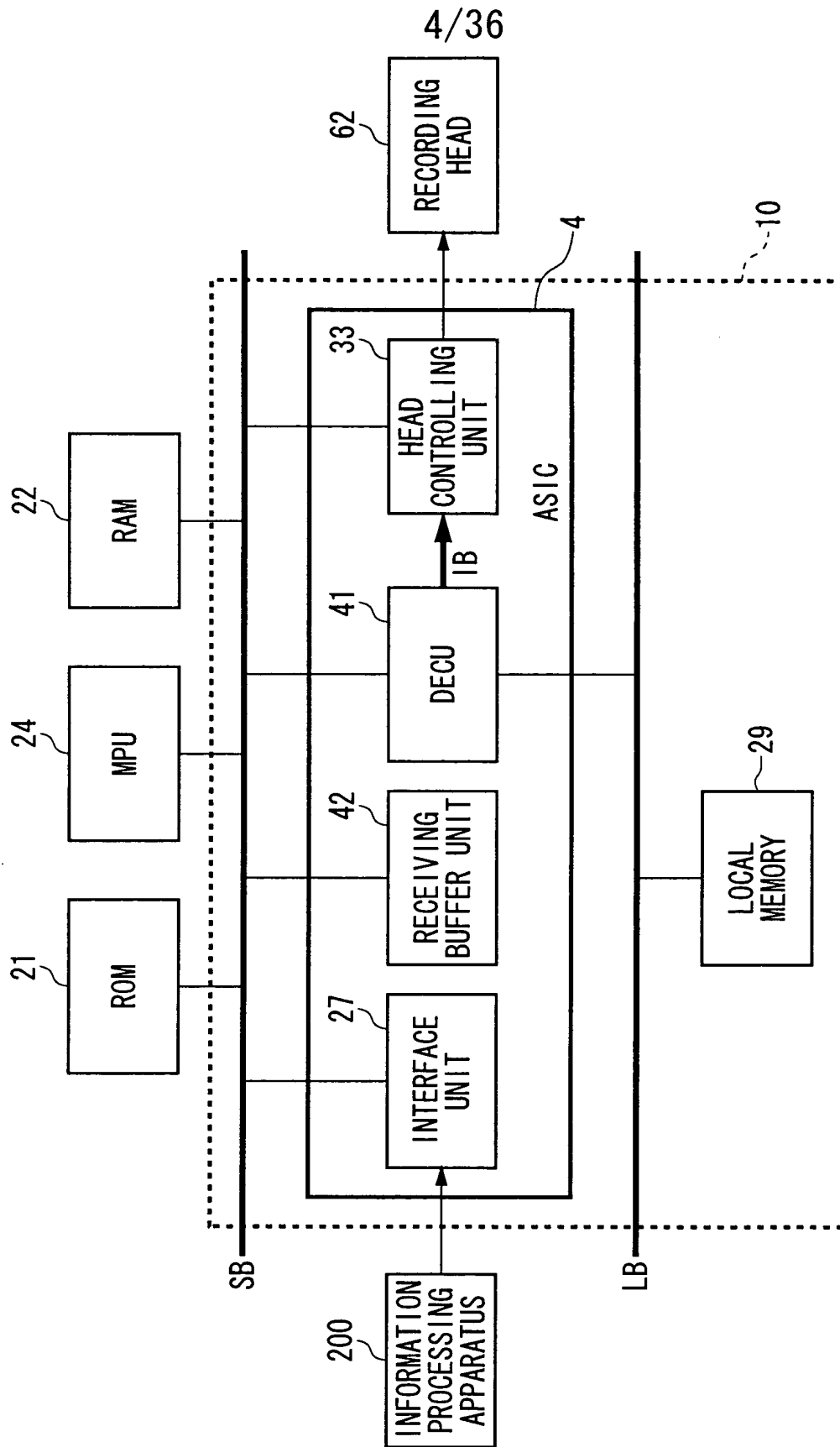L-DMA
CONTROLLER

413

LOCAL
MEMORY
CONTROLLER —414

LB

LOCAL
MEMORY —29

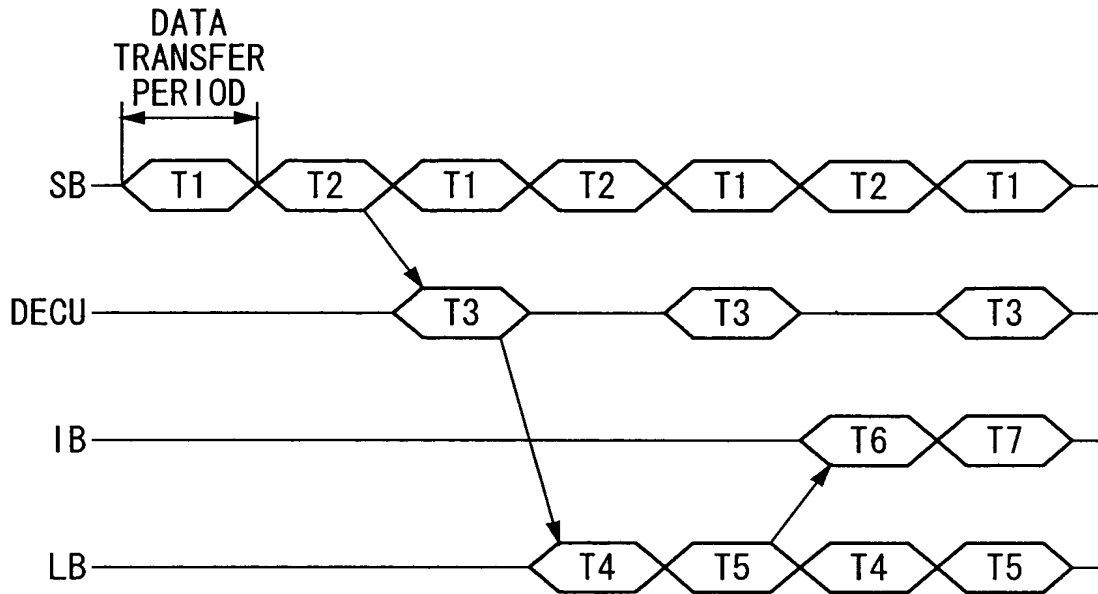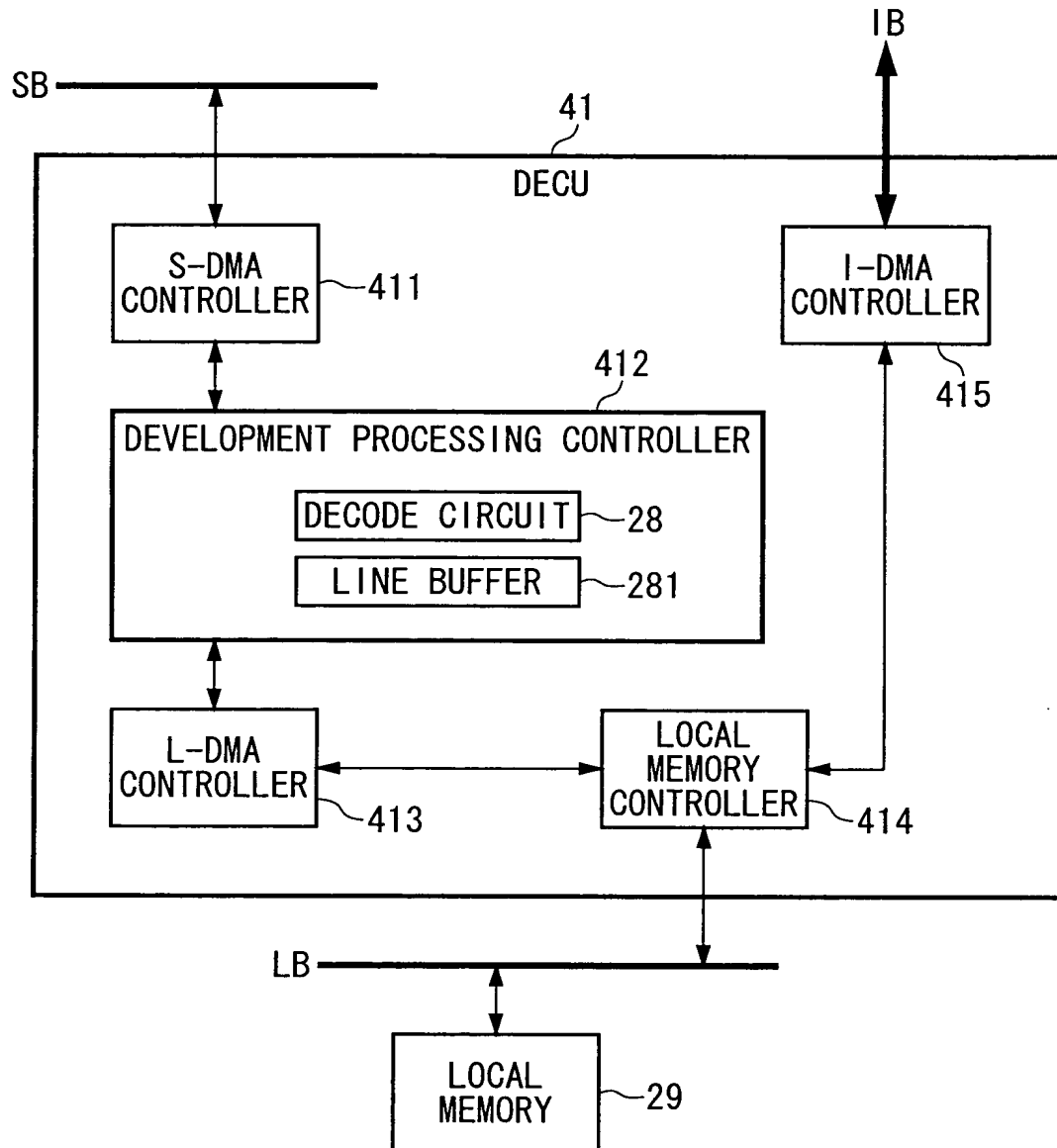*FIG. 6*

OPERATING CONDITION
MAIN MEMORY SIDE: STARTING ADDRESS OF RUN LENGTH DATA IS AN EVEN ADDRESS
LOCAL MEMORY SIDE: STARTING ADDRESS OF IMAGE DATA IS AN EVEN ADDRESS
NUMBER OF BYTES IN 1 LINE: 16 BYTES

MAIN MEMORY

| FE 01 |
| 03 02 |
| 78 55 |
| 44 FB |
| FF FE |
| 11 06 |
| 66 12 |
| 77 45 |
| 89 10 |
| 55 FB |
| 10 FA |
| 20 08 |
| 12 13 |
| 14 15 |
| 16 17 |
| 18 19 |
| 20 FD |
| 11 02 |
| 98 B0 |
| F2 FC |
| AB 03 |
| FF FE |
| FC FD |
| FE FF |

DECU

TRANSFER S1 → FE 01
FACE A: 01 01 | 01
FACE B:

TRANSFER S2 → 03 02
FACE A: 01 01 | 01 02
FACE B:

TRANSFER S3 → 78 55
FACE A: 01 01 | 01 02 | 78 55
FACE B:

TRANSFER S4 → 44 FB
FACE A: 01 01 | 01 02 | 78 55 | 44
FACE B:

TRANSFER S5 → FF FE
FACE A: 01 01 | 01 02 | 78 55 | 44 FF | FF FF | FF FF | FF
FACE B:

TRANSFER S6 → 11 06
FACE A: 01 01 | 01 02 | 78 55 | 44 FF | FF FF | FF FF | FF 11 | 11 11
FACE B:
TRANSFER D1

TRANSFER S7 → 66 12
FACE A:
FACE B: 66 12

TRANSFER S8 → 77 45
FACE A:
FACE B: 66 12 | 77 45

TRANSFER S9 → 89 10
FACE A:
FACE B: 66 12 | 77 45 | 89 10

TRANSFER S10 → 55 FB
FACE A:
FACE B: 66 12 | 77 45 | 89 10 | 55

TRANSFER S11 → 10 FA
FACE A:
FACE B: 66 12 | 77 45 | 89 10 | 55 10 | 10 10 | 10 10 | 10

TRANSFER S12 → 20 08
FACE A: 20 20 | 20 20
FACE B: 66 12 | 77 45 | 89 10 | 55 10 | 10 10 | 10 10 | 10 20 | 20 20
TRANSFER D2

FIG. 7

DECU

⋮

TRANSFER S13 → | 12 13 |

FACE A	20 20	20 20	12 13						
FACE B									

TRANSFER S14 → | 14 15 |

FACE A	20 20	20 20	12 13	14 15					
FACE B									

TRANSFER S15 → | 16 17 |

FACE A	20 20	20 20	12 13	14 15	16 17				
FACE B									

TRANSFER S16 → | 18 19 |

FACE A	20 20	20 20	12 13	14 15	16 17	18 19			
FACE B									

TRANSFER S17 → | 20 FD |

FACE A	20 20	20 20	12 13	14 15	16 17	18 19	20		
FACE B									

TRANSFER S18 → | 11 02 |

FACE A	20 20	20 20	12 13	14 15	16 17	18 19	20 11	11 11	
FACE B	11								

TRANSFER D3 →

TRANSFER S19 → | 98 B0 |

FACE A									
FACE B	11 98	B0							

TRANSFER S20 → | F2 FC |

FACE A									
FACE B	11 98	B0 F2							

TRANSFER S21 → | AB 03 |

FACE A									
FACE B	11 98	B0 F2	AB AB	AB AB	AB				

TRANSFER S22 → | FF FE |

FACE A									
FACE B	11 98	B0 F2	AB AB	AB AB	AB FF	FE			

TRANSFER S23 → | FC FD |

FACE A									
FACE B	11 98	B0 F2	AB AB	AB AB	AB FF	FE FC	FD		

TRANSFER S24 → | FE FF |

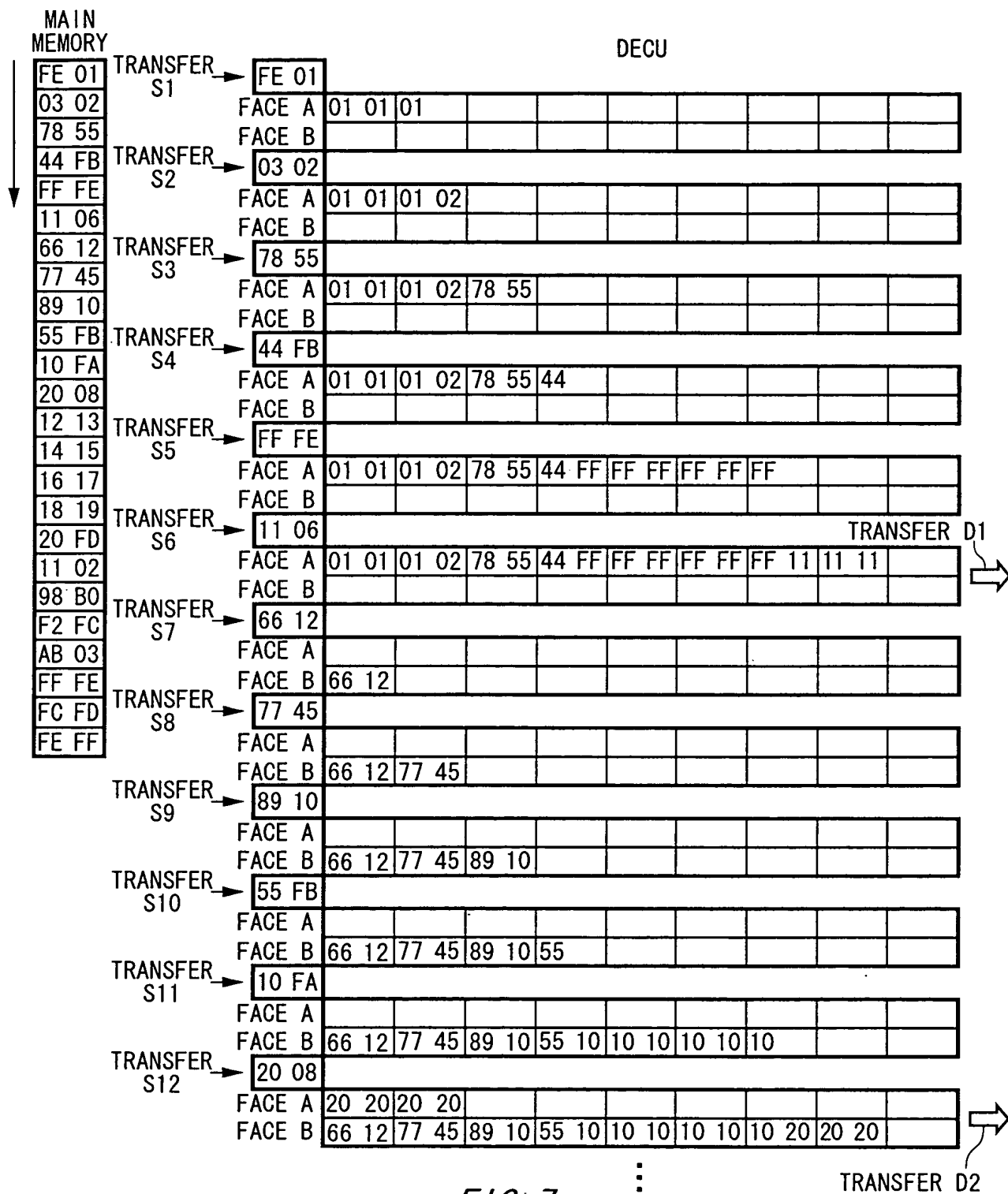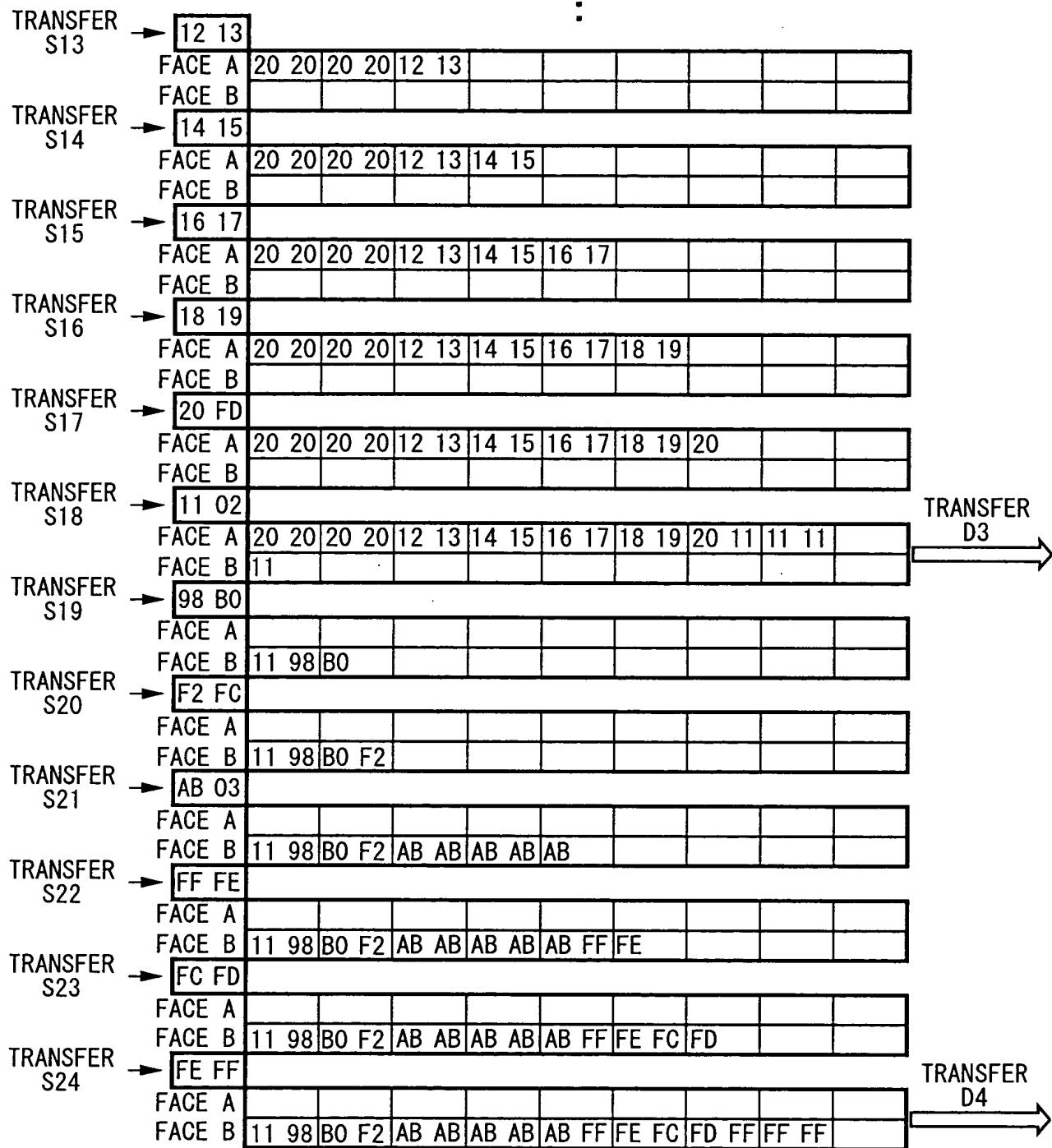| FACE A									
FACE B	11 98	B0 F2	AB AB	AB AB	AB FF	FE FC	FD FF	FF FF	

TRANSFER D4 →

FIG. 8

SETTING CONDITION
NO VERTICAL LINE REARRANGEMENT
TOTAL NUMBER OF DEVELOPED BYTES: 64 BYTES (16×4)
NUMBER OF BYTES IN 1 LINE: 16 BYTES
NUMBER OF DEVELOPED LINES: 4 LINES

LOCAL MEMORY

FIG. 9A

D1→

01 01	01 02	78 55	44 FF
FF FF	FF FF	FF 11	11 11
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00

FIG. 9B

D2→

01 01	01 02	78 55	44 FF
FF FF	FF FF	FF 11	11 11
66 12	77 45	89 10	55 10
10 10	10 10	10 20	20 20
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00

FIG. 9C

D3→

01 01	01 02	78 55	44 FF
FF FF	FF FF	FF 11	11 11
66 12	77 45	89 10	55 10
10 10	10 10	10 20	20 20
20 20	20 20	12 13	14 15
16 17	18 19	20 11	11 11
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00

FIG. 9D

D4→

01 01	01 02	78 55	44 FF
FF FF	FF FF	FF 11	11 11
66 12	77 45	89 10	55 10
10 10	10 10	10 20	20 20
20 20	20 20	12 13	14 15
16 17	18 19	20 11	11 11
11 98	B0 F2	AB AB	AB AB
AB FF	FE FC	FD FF	FF FF

SETTING CONDITION
VERTICAL LINE REARRANGEMENT PERFORMED
TOTAL NUMBER OF DEVELOPED BYTES: 64 BYTES (16 × 4)
NUMBER OF BYTES IN 1 LINE: 16 BYTES
NUMBER OF DEVELOPED LINES: 4 LINES

LOCAL MEMORY

FIG. 10A D1 ↓

01 01	00 00	00 00	00 00	···	00 00
01 02	00 00	00 00	00 00	···	00 00
78 55	00 00	00 00	00 00	···	00 00
44 FF	00 00	00 00	00 00	···	00 00
FF FF	00 00	00 00	00 00	···	00 00
FF FF	00 00	00 00	00 00	···	00 00
FF 11	00 00	00 00	00 00	···	00 00
11 11	00 00	00 00	00 00	···	00 00

FIG. 10B D2 ↓

01 01	66 12	00 00	00 00	···	00 00
01 02	77 45	00 00	00 00	···	00 00
78 55	89 10	00 00	00 00	···	00 00
44 FF	55 10	00 00	00 00	···	00 00
FF FF	10 10	00 00	00 00	···	00 00
FF FF	10 10	00 00	00 00	···	00 00
FF 11	10 20	00 00	00 00	···	00 00
11 11	20 20	00 00	00 00	···	00 00

FIG. 10C D3 ↓

01 01	66 12	20 20	00 00	···	00 00
01 02	77 45	20 20	00 00	···	00 00
78 55	89 10	12 13	00 00	···	00 00
44 FF	55 10	14 15	00 00	···	00 00
FF FF	10 10	16 17	00 00	···	00 00
FF FF	10 10	18 19	00 00	···	00 00
FF 11	10 20	20 11	00 00	···	00 00
11 11	20 20	11 11	00 00	···	00 00

FIG. 10D D4 ↓

01 01	66 12	20 20	11 98	···	00 00
01 02	77 45	20 20	B0 F2	···	00 00
78 55	89 10	12 13	AB AB	···	00 00
44 FF	55 10	14 15	AB AB	···	00 00
FF FF	10 10	16 17	AB FF	···	00 00
FF FF	10 10	18 19	FE FC	···	00 00
FF 11	10 20	20 11	FD FF	···	00 00
11 11	20 20	11 11	FF FF	···	00 00

OPERATING CONDITION
MAIN MEMORY SIDE: STARTING ADDRESS OF RUN LENGTH DATA IS AN ODD ADDRESS
LOCAL MEMORY SIDE: STARTING ADDRESS OF IMAGE DATA IS AN EVEN ADDRESS
NUMBER OF 1 LINE BUFFER: 16 BYTES

MAIN MEMORY

AA	FE
01	03
02	78
55	44
FB	FF
FE	11
06	66
12	77
45	89
10	55
FB	10
FA	20
08	12
13	14
15	16
17	18
19	20
FD	11
02	98
B0	F2
FC	AB
03	FF
FE	FC
FD	FE
FF	00

DECU

TRANSFER S31 → `AA FE` / `01 03`
FACE A: 01 01 | 01
FACE B:

TRANSFER S32 → `02 78`
FACE A: 01 01 | 01 02 | 78
FACE B:

TRANSFER S33 → `55 44`
FACE A: 01 01 | 01 02 | 78 55 | 44
FACE B:

TRANSFER S34 → `FB FF`
FACE A: 01 01 | 01 02 | 78 55 | 44 FF | FF FF | FF FF | FF
FACE B:

TRANSFER S35 → `FE 11`
FACE A: 01 01 | 01 02 | 78 55 | 44 FF | FF FF | FF FF | FF 11 | 11 11   TRANSFER D1 →
FACE B:

TRANSFER S36 → `06 66`
FACE A:
FACE B: 66

TRANSFER S37 → `12 77`
FACE A:
FACE B: 66 12 | 77

TRANSFER S38 → `45 89`
FACE A:
FACE B: 66 12 | 77 45 | 89

TRANSFER S39 → `10 55`
FACE A:
FACE B: 66 12 | 77 45 | 89 10 | 55

TRANSFER S40 → `FB 10`
FACE A:
FACE B: 66 12 | 77 45 | 89 10 | 55 10 | 10 10 | 10 10 | 10

TRANSFER S41 → `FA 20`
FACE A: 20 20 | 20 20   TRANSFER D2 →
FACE B: 66 12 | 77 45 | 89 10 | 55 10 | 10 10 | 10 10 | 10 20 | 20 20

TRANSFER S42 → `08 12`
FACE A: 20 20 | 20 20 | 12
FACE B:

FIG. 11

DECU

⋮

TRANSFER S43 → `13 14`

FACE A	20 20	20 20	12 13	14					
FACE B									

TRANSFER S44 → `15 16`

FACE A	20 20	20 20	12 13	14 15	16				
FACE B									

TRANSFER S45 → `17 18`

FACE A	20 20	20 20	12 13	14 15	16 17	18			
FACE B									

TRANSFER S46 → `19 20`

FACE A	20 20	20 20	12 13	14 15	16 17	18 19	20		
FACE B									

TRANSFER S47 → `FD 11`

FACE A	20 20	20 20	12 13	14 15	16 17	18 19	20 11	11 11	
FACE B	11								

TRANSFER D3 →

TRANSFER S48 → `02 98`

FACE A									
FACE B	11 98								

TRANSFER S49 → `B0 F2`

FACE A									
FACE B	11 98	B0 F2							

TRANSFER S50 → `FC AB`

FACE A									
FACE B	11 98	B0 F2	AB AB	AB AB	AB				

TRANSFER S51 → `03 FF`

FACE A									
FACE B	11 98	B0 F2	AB AB	AB AB	AB FF				

TRANSFER S52 → `FE FC`

FACE A									
FACE B	11 98	B0 F2	AB AB	AB AB	AB FF	FE FC			

TRANSFER S53 → `FD FE`

FACE A									
FACE B	11 98	B0 F2	AB AB	AB AB	AB FF	FE FC	FD		

TRANSFER S54 → `FF 00`

FACE A									
FACE B	11 98	B0 F2	AB AB	AB AB	AB FF	FE FC	FD FF	FF FF	

TRANSFER D4 →

FIG. 12

OPERATING CONDITION
MAIN MEMORY SIDE: STARTING ADDRESS OF RUN LENGTH DATA IS AN EVEN ADDRESS
LOCAL MEMORY SIDE: STARTING ADDRESS OF IMAGE DATA IS AN EVEN ADDRESS
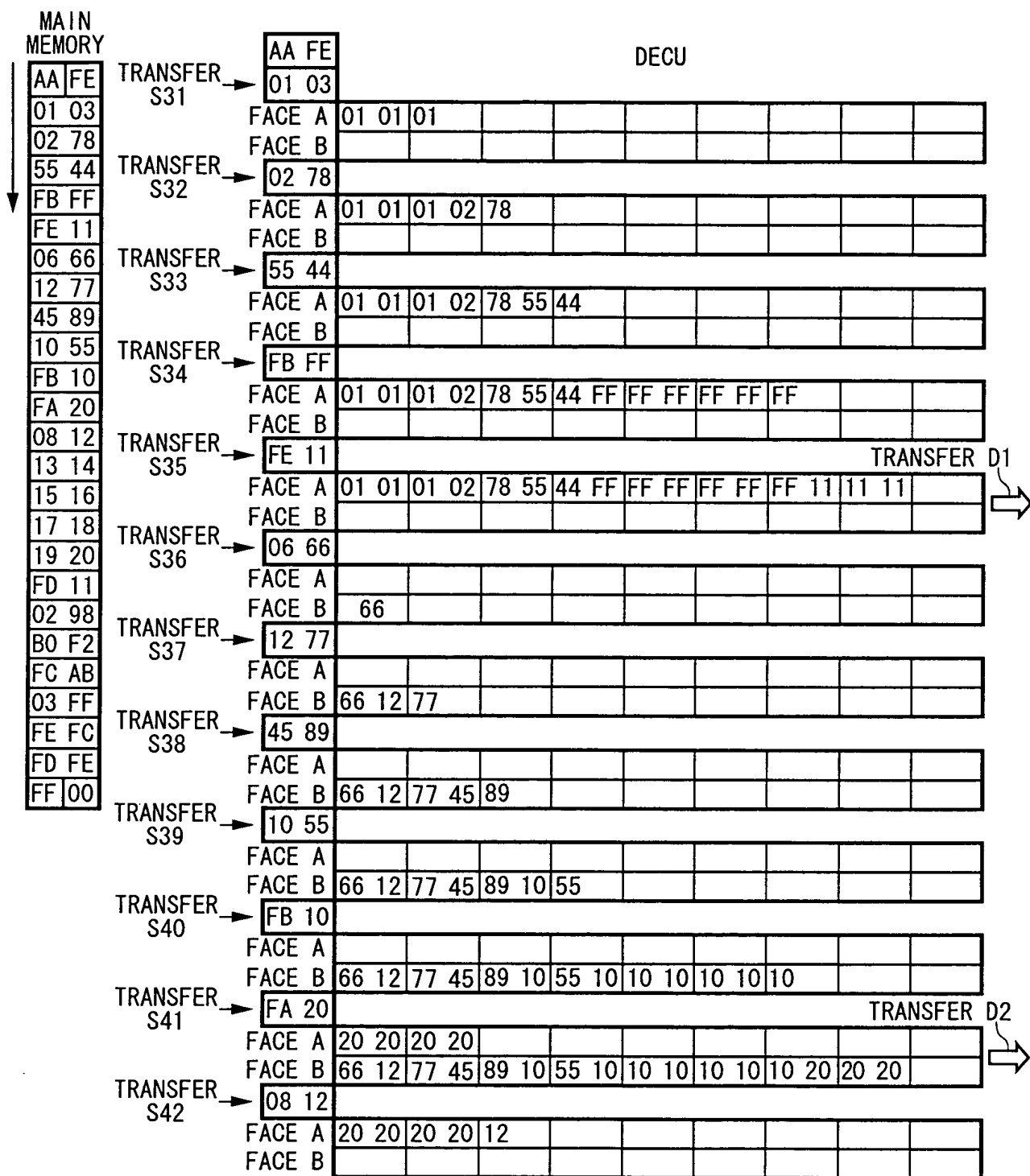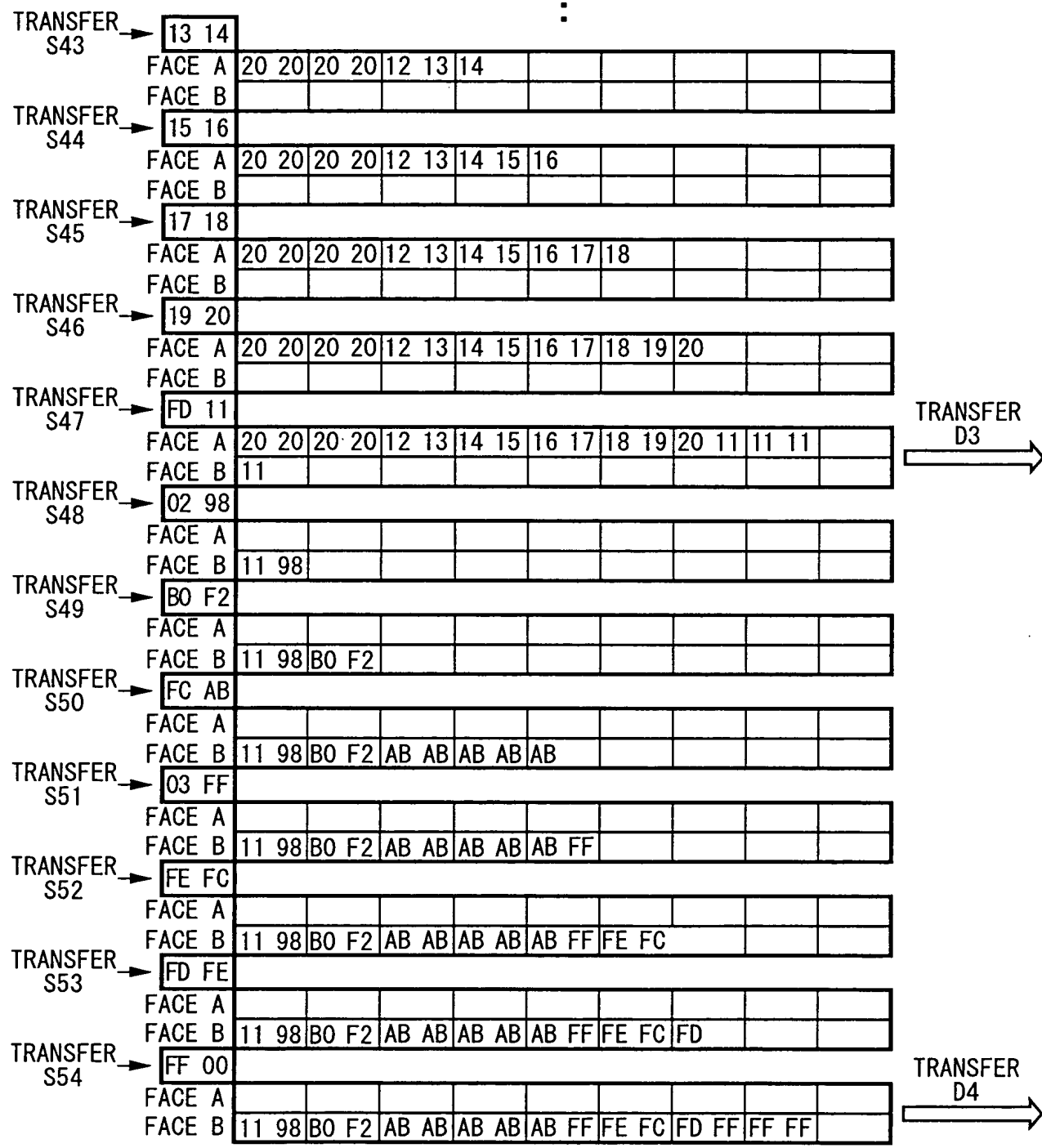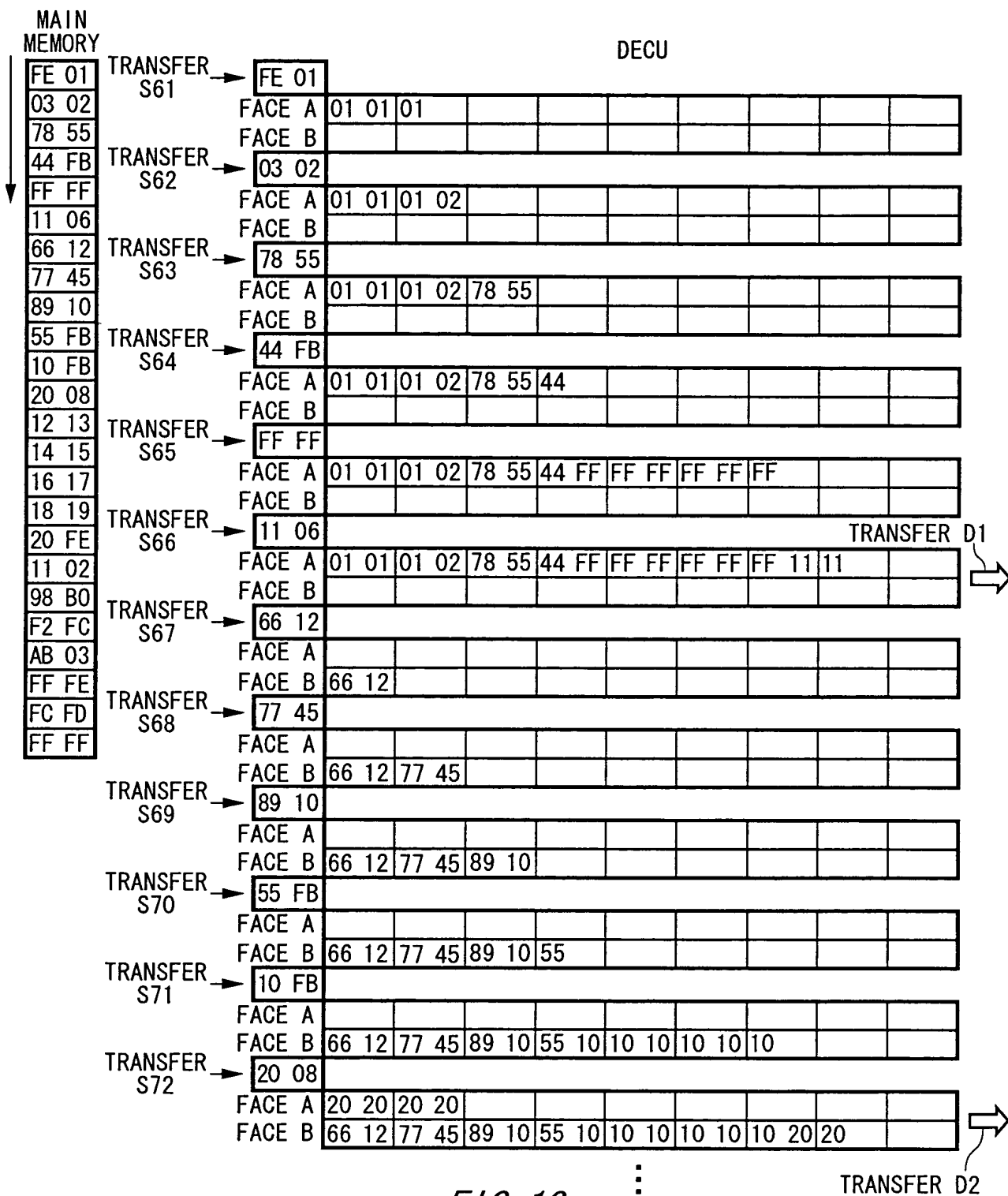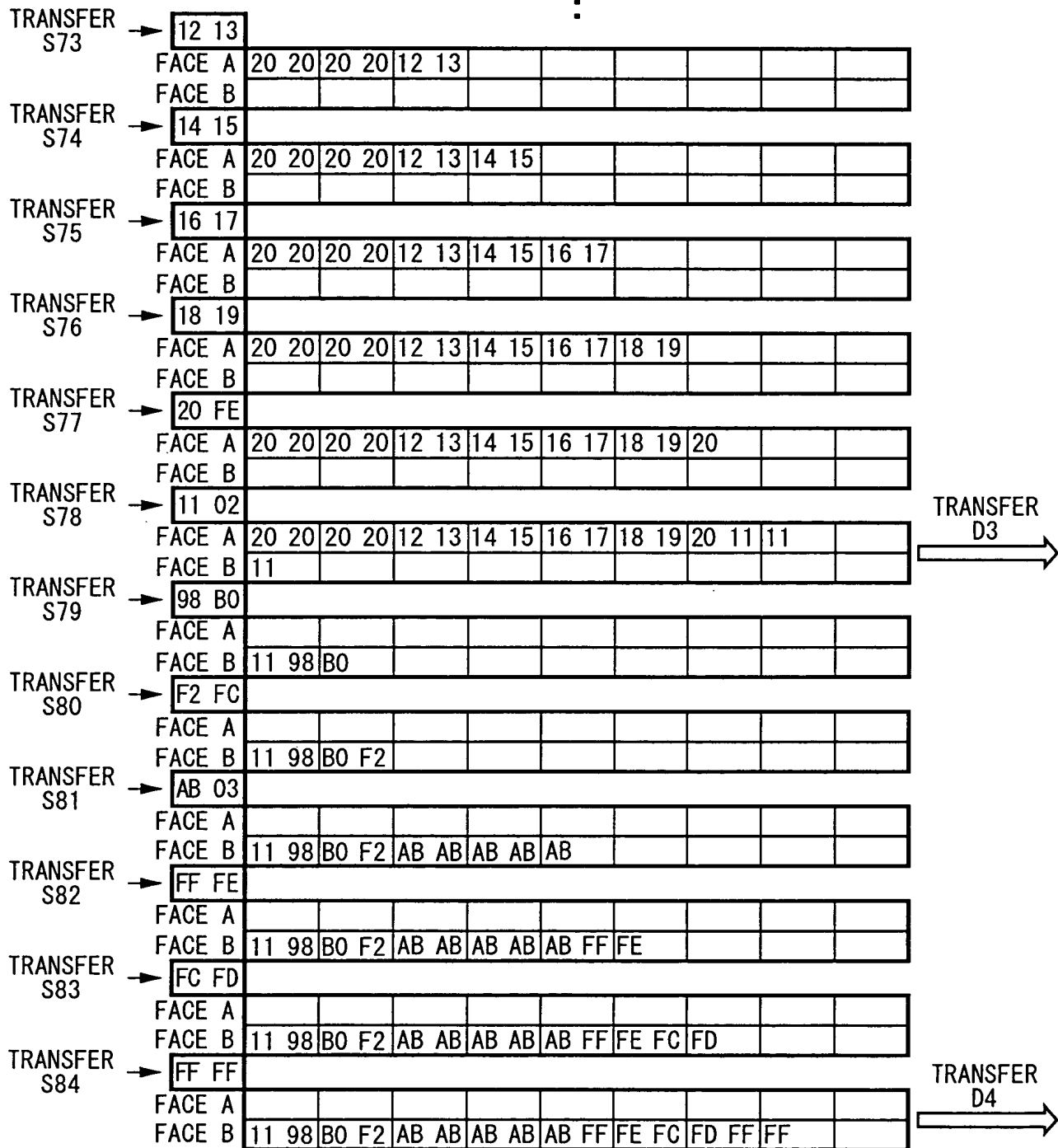NUMBER OF 1 LINE BUFFER: 15 BYTES

MAIN MEMORY

| FE 01 |
| 03 02 |
| 78 55 |
| 44 FB |
| FF FF |
| 11 06 |
| 66 12 |
| 77 45 |
| 89 10 |
| 55 FB |
| 10 FB |
| 20 08 |
| 12 13 |
| 14 15 |
| 16 17 |
| 18 19 |
| 20 FE |
| 11 02 |
| 98 B0 |
| F2 FC |
| AB 03 |
| FF FE |
| FC FD |
| FF FF |

DECU

TRANSFER S61 → [FE 01]
FACE A: 01 01 | 01
FACE B:

TRANSFER S62 → [03 02]
FACE A: 01 01 | 01 02
FACE B:

TRANSFER S63 → [78 55]
FACE A: 01 01 | 01 02 | 78 55
FACE B:

TRANSFER S64 → [44 FB]
FACE A: 01 01 | 01 02 | 78 55 | 44
FACE B:

TRANSFER S65 → [FF FF]
FACE A: 01 01 | 01 02 | 78 55 | 44 FF | FF FF | FF FF | FF
FACE B:

TRANSFER S66 → [11 06]   TRANSFER D1
FACE A: 01 01 | 01 02 | 78 55 | 44 FF | FF FF | FF FF | FF 11 | 11 →
FACE B:

TRANSFER S67 → [66 12]
FACE A:
FACE B: 66 12

TRANSFER S68 → [77 45]
FACE A:
FACE B: 66 12 | 77 45

TRANSFER S69 → [89 10]
FACE A:
FACE B: 66 12 | 77 45 | 89 10

TRANSFER S70 → [55 FB]
FACE A:
FACE B: 66 12 | 77 45 | 89 10 | 55

TRANSFER S71 → [10 FB]
FACE A:
FACE B: 66 12 | 77 45 | 89 10 | 55 10 | 10 10 | 10 10 | 10

TRANSFER S72 → [20 08]
FACE A: 20 20 | 20 20
FACE B: 66 12 | 77 45 | 89 10 | 55 10 | 10 10 | 10 10 | 10 20 | 20 → TRANSFER D2

⋮

FIG. 13

DECU

⋮

TRANSFER S73 → `12 13`

| FACE A | 20 20 | 20 20 | 12 13 | | | | | | |
| FACE B | | | | | | | | | |

TRANSFER S74 → `14 15`

| FACE A | 20 20 | 20 20 | 12 13 | 14 15 | | | | | |
| FACE B | | | | | | | | | |

TRANSFER S75 → `16 17`

| FACE A | 20 20 | 20 20 | 12 13 | 14 15 | 16 17 | | | | |
| FACE B | | | | | | | | | |

TRANSFER S76 → `18 19`

| FACE A | 20 20 | 20 20 | 12 13 | 14 15 | 16 17 | 18 19 | | | |
| FACE B | | | | | | | | | |

TRANSFER S77 → `20 FE`

| FACE A | 20 20 | 20 20 | 12 13 | 14 15 | 16 17 | 18 19 | 20 | | |
| FACE B | | | | | | | | | |

TRANSFER S78 → `11 02`

| FACE A | 20 20 | 20 20 | 12 13 | 14 15 | 16 17 | 18 19 | 20 11 | 11 | |
| FACE B | 11 | | | | | | | | |

→ TRANSFER D3

TRANSFER S79 → `98 B0`

| FACE A | | | | | | | | | |
| FACE B | 11 98 | B0 | | | | | | | |

TRANSFER S80 → `F2 FC`

| FACE A | | | | | | | | | |
| FACE B | 11 98 | B0 F2 | | | | | | | |

TRANSFER S81 → `AB 03`

| FACE A | | | | | | | | | |
| FACE B | 11 98 | B0 F2 | AB AB | AB AB | AB | | | | |

TRANSFER S82 → `FF FE`

| FACE A | | | | | | | | | |
| FACE B | 11 98 | B0 F2 | AB AB | AB AB | AB FF | FE | | | |

TRANSFER S83 → `FC FD`

| FACE A | | | | | | | | | |
| FACE B | 11 98 | B0 F2 | AB AB | AB AB | AB FF | FE FC | FD | | |

TRANSFER S84 → `FF FF`

| FACE A | | | | | | | | | |
| FACE B | 11 98 | B0 F2 | AB AB | AB AB | AB FF | FE FC | FD FF | FF | |

→ TRANSFER D4

FIG. 14

SETTING CONDITION
VERTICAL LINE REARRANGEMENT PERFORMED
TOTAL NUMBER OF DEVELOPED BYTES: 60 BYTES (15 × 4)
NUMBER OF BYTES IN 1 LINE: 15 BYTES
NUMBER OF DEVELOPED LINES: 4 LINES

LOCAL MEMORY

FIG. 15A

D1 ↓

01	01	00	00	00	00	00	00	···	00	00
01	02	00	00	00	00	00	00	···	00	00
78	55	00	00	00	00	00	00	···	00	00
44	FF	00	00	00	00	00	00	···	00	00
FF	FF	00	00	00	00	00	00	···	00	00
FF	FF	00	00	00	00	00	00	···	00	00
FF	11	00	00	00	00	00	00	···	00	00
11	00	00	00	00	00	00	00	···	00	00

FIG. 15B

D2 ↓

01	01	66	12	00	00	00	00	···	00	00
01	02	77	45	00	00	00	00	···	00	00
78	55	89	10	00	00	00	00	···	00	00
44	FF	55	10	00	00	00	00	···	00	00
FF	FF	10	10	00	00	00	00	···	00	00
FF	FF	10	10	00	00	00	00	···	00	00
FF	11	10	20	00	00	00	00	···	00	00
11	00	20	00	00	00	00	00	···	00	00

FIG. 15C

D3 ↓

01	01	66	12	20	20	00	00	···	00	00
01	02	77	45	20	20	00	00	···	00	00
78	55	89	10	12	13	00	00	···	00	00
44	FF	55	10	14	15	00	00	···	00	00
FF	FF	10	10	16	17	00	00	···	00	00
FF	FF	10	10	18	19	00	00	···	00	00
FF	11	10	20	20	11	00	00	···	00	00
11	00	20	00	11	00	00	00	···	00	00

FIG. 15D

D4 ↓

01	01	66	12	20	20	11	98	···	00	00
01	02	77	45	20	20	B0	F2	···	00	00
78	55	89	10	12	13	AB	AB	···	00	00
44	FF	55	10	14	15	AB	AB	···	00	00
FF	FF	10	10	16	17	AB	FF	···	00	00
FF	FF	10	10	18	19	FE	FC	···	00	00
FF	11	10	20	20	11	FD	FF	···	00	00
11	00	20	00	11	00	FF	00	···	00	00

SETTING CONDITION
NO VERTICAL LINE REARRANGEMENT
TOTAL NUMBER OF DEVELOPED BYTES: 60 BYTES (15×4)
NUMBER OF BYTES IN 1 LINE: 15 BYTES
NUMBER OF DEVELOPED LINES: 4 LINES

LOCAL MEMORY

FIG. 16A

D1 →

01 01	01 02	78 55	44 FF
FF FF	FF FF	FF 11	11 00
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00

FIG. 16B

01 01	01 02	78 55	44 FF
FF FF	FF FF	FF 11	11 00
66 12	77 45	89 10	55 10	← D2
10 10	10 10	10 20	20 00
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00

FIG. 16C

01 01	01 02	78 55	44 FF
FF FF	FF FF	FF 11	11 00
66 12	77 45	89 10	55 10
10 10	10 10	10 20	20 00
20 20	20 20	12 13	14 15	← D3
16 17	18 19	20 11	11 00
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00

FIG. 16D

01 01	01 02	78 55	44 FF
FF FF	FF FF	FF 11	11 00
66 12	77 45	89 10	55 10
10 10	10 10	10 20	20 00
20 20	20 20	12 13	14 15
16 17	18 19	20 11	11 00
11 98	B0 F2	AB AB	AB AB	← D4
AB FF	FE FC	FD FF	FF 00

OPERATING CONDITION
MAIN MEMORY SIDE: STARTING ADDRESS OF RUN LENGTH DATA IS AN ODD ADDRESS
LOCAL MEMORY SIDE: STARTING ADDRESS OF IMAGE DATA IS AN EVEN ADDRESS
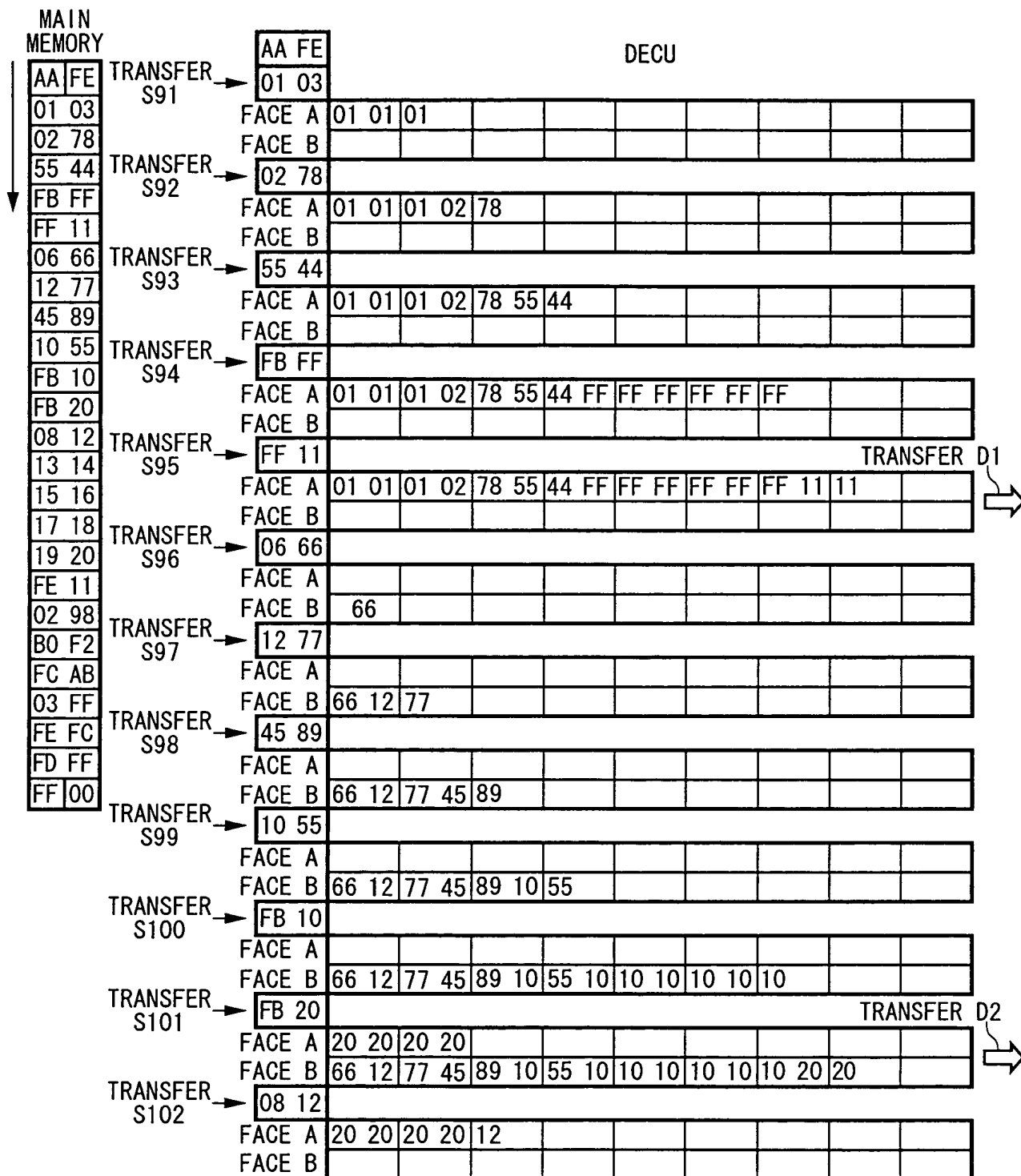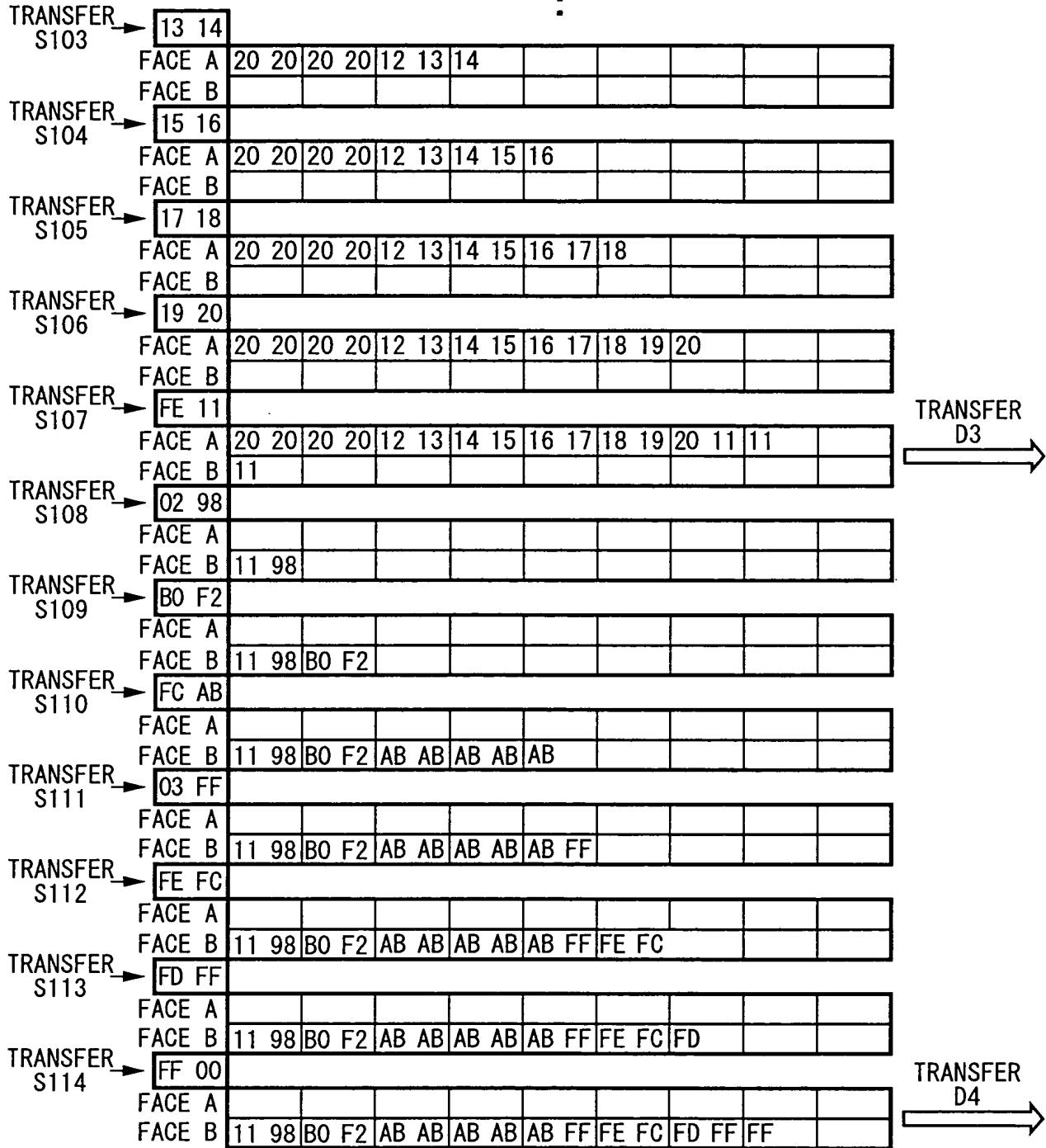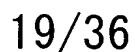NUMBER OF 1 LINE BUFFER: 15 BYTES

MAIN MEMORY

AA	FE
01	03
02	78
55	44
FB	FF
FF	11
06	66
12	77
45	89
10	55
FB	10
FB	20
08	12
13	14
15	16
17	18
19	20
FE	11
02	98
B0	F2
FC	AB
03	FF
FE	FC
FD	FF
FF	00

DECU

TRANSFER S91 → AA FE / 01 03
FACE A: 01 01 | 01
FACE B:

TRANSFER S92 → 02 78
FACE A: 01 01 | 01 02 | 78
FACE B:

TRANSFER S93 → 55 44
FACE A: 01 01 | 01 02 | 78 55 | 44
FACE B:

TRANSFER S94 → FB FF
FACE A: 01 01 | 01 02 | 78 55 | 44 FF | FF FF | FF FF | FF
FACE B:

TRANSFER S95 → FF 11
FACE A: 01 01 | 01 02 | 78 55 | 44 FF | FF FF | FF FF | FF 11 | 11
FACE B:
TRANSFER D1

TRANSFER S96 → 06 66
FACE A:
FACE B: 66

TRANSFER S97 → 12 77
FACE A:
FACE B: 66 12 | 77

TRANSFER S98 → 45 89
FACE A:
FACE B: 66 12 | 77 45 | 89

TRANSFER S99 → 10 55
FACE A:
FACE B: 66 12 | 77 45 | 89 10 | 55

TRANSFER S100 → FB 10
FACE A:
FACE B: 66 12 | 77 45 | 89 10 | 55 10 | 10 10 | 10 10 | 10

TRANSFER S101 → FB 20
FACE A: 20 20 | 20 20
FACE B: 66 12 | 77 45 | 89 10 | 55 10 | 10 10 | 10 10 | 10 20 | 20
TRANSFER D2

TRANSFER S102 → 08 12
FACE A: 20 20 | 20 20 | 12
FACE B:

FIG. 17

DECU

⋮

TRANSFER S103 → [13 14]									
FACE A	20 20	20 20	12 13	14					
FACE B									

TRANSFER S104 → [15 16]									
FACE A	20 20	20 20	12 13	14 15	16				
FACE B									

TRANSFER S105 → [17 18]									
FACE A	20 20	20 20	12 13	14 15	16 17	18			
FACE B									

TRANSFER S106 → [19 20]									
FACE A	20 20	20 20	12 13	14 15	16 17	18 19	20		
FACE B									

TRANSFER S107 → [FE 11]										TRANSFER D3 →
FACE A	20 20	20 20	12 13	14 15	16 17	18 19	20 11	11		
FACE B	11									

TRANSFER S108 → [02 98]									
FACE A									
FACE B	11 98								

TRANSFER S109 → [B0 F2]									
FACE A									
FACE B	11 98	B0 F2							

TRANSFER S110 → [FC AB]									
FACE A									
FACE B	11 98	B0 F2	AB AB	AB AB	AB				

TRANSFER S111 → [03 FF]									
FACE A									
FACE B	11 98	B0 F2	AB AB	AB AB	AB FF				

TRANSFER S112 → [FE FC]									
FACE A									
FACE B	11 98	B0 F2	AB AB	AB AB	AB FF	FE FC			

TRANSFER S113 → [FD FF]									
FACE A									
FACE B	11 98	B0 F2	AB AB	AB AB	AB FF	FE FC	FD		

TRANSFER S114 → [FF 00]										TRANSFER D4 →
FACE A										
FACE B	11 98	B0 F2	AB AB	AB AB	AB FF	FE FC	FD FF	FF		

FIG. 18

OPERATING CONDITION
MAIN MEMORY SIDE: STARTING ADDRESS OF RUN LENGTH DATA IS AN EVEN ADDRESS
LOCAL MEMORY SIDE: STARTING ADDRESS OF IMAGE DATA IS AN ODD ADDRESS
NUMBER OF 1 LINE BUFFER: 16 BYTES

MAIN MEMORY

| FE 01 |
| 03 02 |
| 78 55 |
| 44 FB |
| FF FE |
| 11 06 |
| 66 12 |
| 77 45 |
| 89 10 |
| 55 FB |
| 10 FA |
| 20 08 |
| 12 13 |
| 14 15 |
| 16 17 |
| 18 19 |
| 20 FD |
| 11 02 |
| 98 B0 |
| F2 FC |
| AB 03 |
| FF FE |
| FC FD |
| FE FF |

DECU

TRANSFER S121 → FE 01
FACE A: 01 | 01 01
FACE B:

TRANSFER S122 → 03 02
FACE A: 01 | 01 01 | 02
FACE B:

TRANSFER S123 → 78 55
FACE A: 01 | 01 01 | 02 78 | 55
FACE B:

TRANSFER S124 → 44 FB
FACE A: 01 | 01 01 | 02 78 | 55 44
FACE B:

TRANSFER S125 → FF FE
FACE A: 01 | 01 01 | 02 78 | 55 44 | FF FF | FF FF | FF FF
FACE B:

TRANSFER S126 → 11 06
FACE A: 01 | 01 01 | 02 78 | 55 44 | FF FF | FF FF | FF FF | 11 11 | 11   TRANSFER D1 ⇨
FACE B:

TRANSFER S127 → 66 12
FACE A:
FACE B: 66 | 12

TRANSFER S128 → 77 45
FACE A:
FACE B: 66 | 12 77 | 45

TRANSFER S129 → 89 10
FACE A:
FACE B: 66 | 12 77 | 45 89 | 10

TRANSFER S130 → 55 FB
FACE A:
FACE B: 66 | 12 77 | 45 89 | 10 55

TRANSFER S131 → 10 FA
FACE A:
FACE B: 66 | 12 77 | 45 89 | 10 55 | 10 10 | 10 10 | 10 10

TRANSFER S132 → 20 08
FACE A: 20 | 20 20 | 20
FACE B: 66 | 12 77 | 45 89 | 10 55 | 10 10 | 10 10 | 10 10 | 20 20 | 20   ⇨

TRANSFER D2

FIG. 19

DECU

:

TRANSFER S133 → | 12 13 |

| FACE A | 20 | 20 20 | 20 12 | 13 | | | | | | |
| FACE B | | | | | | | | | | |

TRANSFER S134 → | 14 15 |

| FACE A | 20 | 20 20 | 20 12 | 13 14 | 15 | | | | | |
| FACE B | | | | | | | | | | |

TRANSFER S135 → | 16 17 |

| FACE A | 20 | 20 20 | 20 12 | 13 14 | 15 16 | 17 | | | | |
| FACE B | | | | | | | | | | |

TRANSFER S136 → | 18 19 |

| FACE A | 20 | 20 20 | 20 12 | 13 14 | 15 16 | 17 18 | 19 | | | |
| FACE B | | | | | | | | | | |

TRANSFER S137 → | 20 FD |

| FACE A | 20 | 20 20 | 20 12 | 13 14 | 15 16 | 17 18 | 19 20 | | | |
| FACE B | | | | | | | | | | |

TRANSFER S138 → | 11 02 |

| FACE A | 20 | 20 20 | 20 12 | 13 14 | 15 16 | 17 18 | 19 20 | 11 11 | 11 | |
| FACE B | 11 | | | | | | | | | |

TRANSFER D3 →

TRANSFER S139 → | 98 B0 |

| FACE A | | | | | | | | | | |
| FACE B | 11 | 98 B0 | | | | | | | | |

TRANSFER S140 → | F2 FC |

| FACE A | | | | | | | | | | |
| FACE B | 11 | 98 B0 | F2 | | | | | | | |

TRANSFER S141 → | AB 03 |

| FACE A | | | | | | | | | | |
| FACE B | 11 | 98 B0 | F2 AB | AB AB | AB AB | | | | | |

TRANSFER S142 → | FF FE |

| FACE A | | | | | | | | | | |
| FACE B | 11 | 98 B0 | F2 AB | AB AB | AB AB | FF FE | | | | |

TRANSFER S143 → | FC FD |

| FACE A | | | | | | | | | | |
| FACE B | 11 | 98 B0 | F2 AB | AB AB | AB AB | FF FE | FC FD | | | |

TRANSFER S144 → | FE FF |

| FACE A | | | | | | | | | | |
| FACE B | 11 | 98 B0 | F2 AB | AB AB | AB AB | FF FE | FC FD | FF FF | FF | |

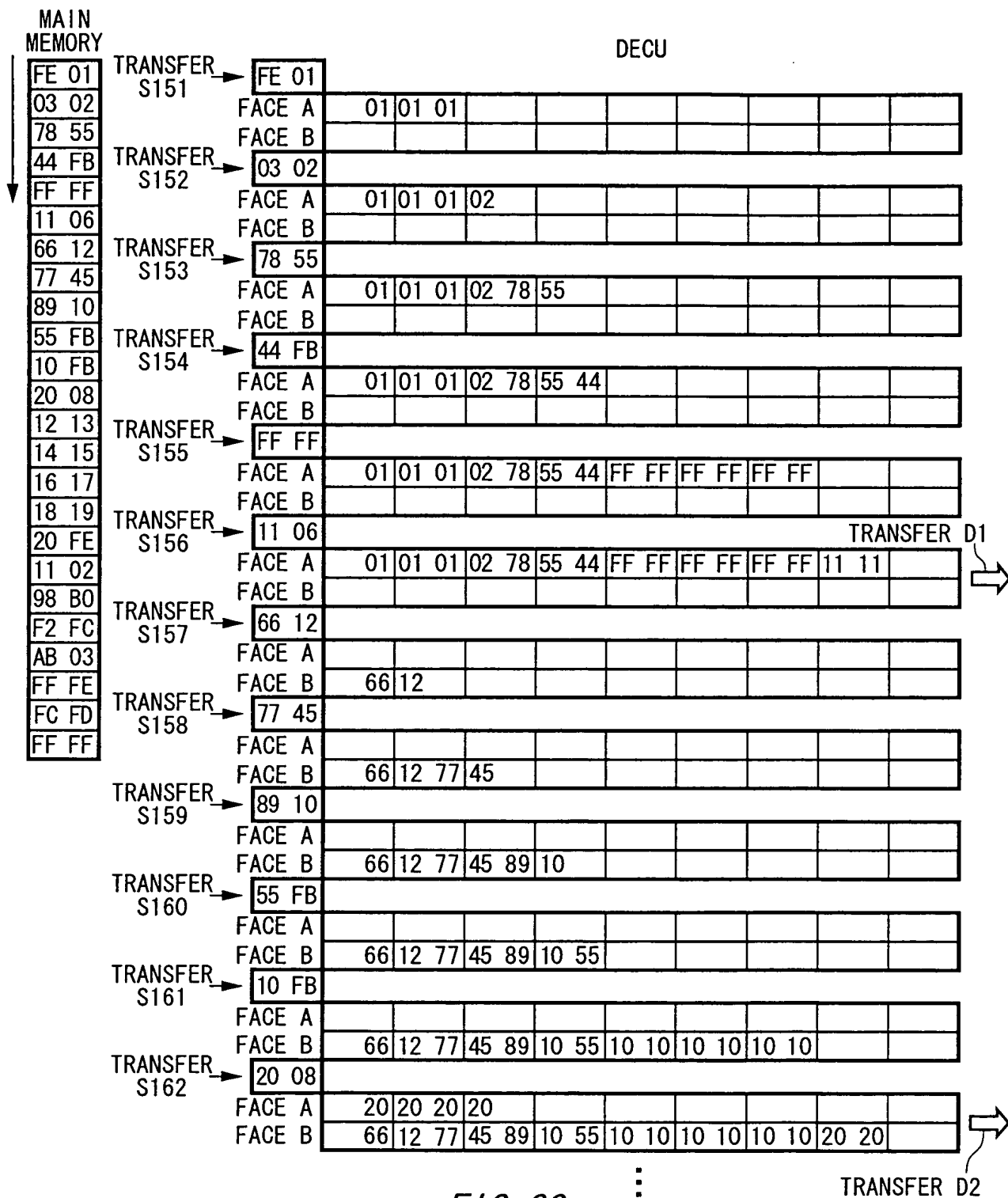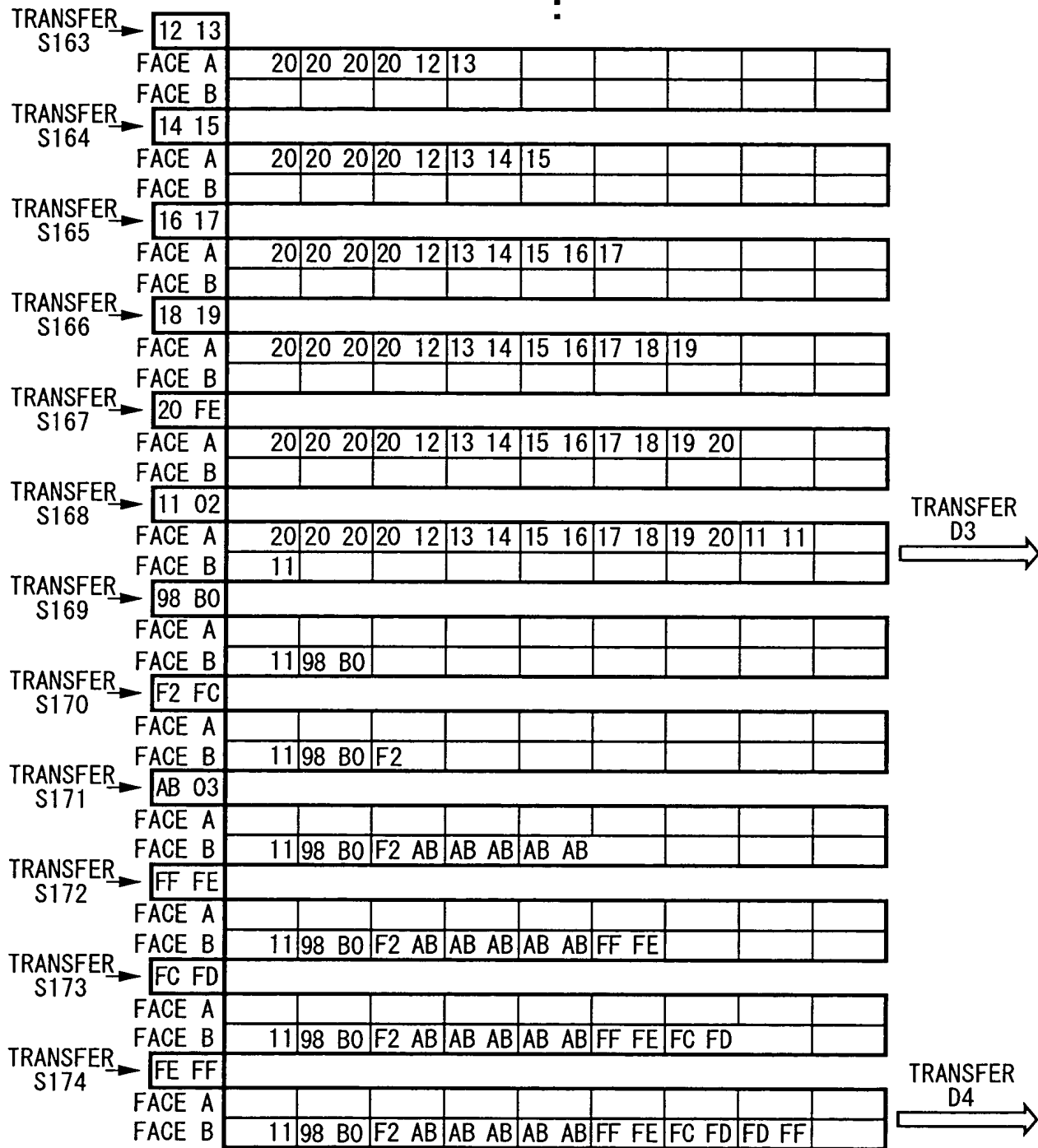TRANSFER D4 →

FIG. 20

SETTING CONDITION
VERTICAL LINE REARRANGEMENT PERFORMED
TOTAL NUMBER OF DEVELOPED BYTES: 64 BYTES (16 × 4)
NUMBER OF BYTES IN 1 LINE: 16 BYTES
NUMBER OF DEVELOPED LINES: 4 LINES

LOCAL MEMORY

FIG. 21A

D1 ↓

00	01	00	00	00	00	00	00	⋯	00	00
01	01	00	00	00	00	00	00	⋯	00	00
02	78	00	00	00	00	00	00	⋯	00	00
55	44	00	00	00	00	00	00	⋯	00	00
FF	FF	00	00	00	00	00	00	⋯	00	00
FF	FF	00	00	00	00	00	00	⋯	00	00
FF	FF	00	00	00	00	00	00	⋯	00	00
11	11	00	00	00	00	00	00	⋯	00	00
11	00	00	00	00	00	00	00	⋯	00	00

FIG. 21B

D2 ↓

00	01	00	66	00	00	00	00	⋯	00	00
01	01	12	77	00	00	00	00	⋯	00	00
02	78	45	89	00	00	00	00	⋯	00	00
55	44	10	55	00	00	00	00	⋯	00	00
FF	FF	10	10	00	00	00	00	⋯	00	00
FF	FF	10	10	00	00	00	00	⋯	00	00
FF	FF	10	10	00	00	00	00	⋯	00	00
11	11	20	20	00	00	00	00	⋯	00	00
11	00	20	00	00	00	00	00	⋯	00	00

FIG. 21C

D3 ↓

00	01	00	66	00	20	00	00	⋯	00	00
01	01	12	77	20	20	00	00	⋯	00	00
02	78	45	89	20	12	00	00	⋯	00	00
55	44	10	55	13	14	00	00	⋯	00	00
FF	FF	10	10	15	16	00	00	⋯	00	00
FF	FF	10	10	17	18	00	00	⋯	00	00
FF	FF	10	10	19	20	00	00	⋯	00	00
11	11	20	20	11	11	00	00	⋯	00	00
11	00	20	00	11	00	00	00	⋯	00	00

FIG. 21D

D4 ↓

00	01	00	66	00	20	00	11	⋯	00	00
01	01	12	77	20	20	98	B0	⋯	00	00
02	78	45	89	20	12	F2	AB	⋯	00	00
55	44	10	55	13	14	AB	AB	⋯	00	00
FF	FF	10	10	15	16	AB	AB	⋯	00	00
FF	FF	10	10	17	18	FF	FE	⋯	00	00
FF	FF	10	10	19	20	FC	FD	⋯	00	00
11	11	20	20	11	11	FF	FF	⋯	00	00
11	00	20	00	11	00	FF	00	⋯	00	00

OPERATING CONDITION
MAIN MEMORY SIDE: STARTING ADDRESS OF RUN LENGTH DATA IS AN EVEN ADDRESS
LOCAL MEMORY SIDE: STARTING ADDRESS OF IMAGE DATA IS AN ODD ADDRESS
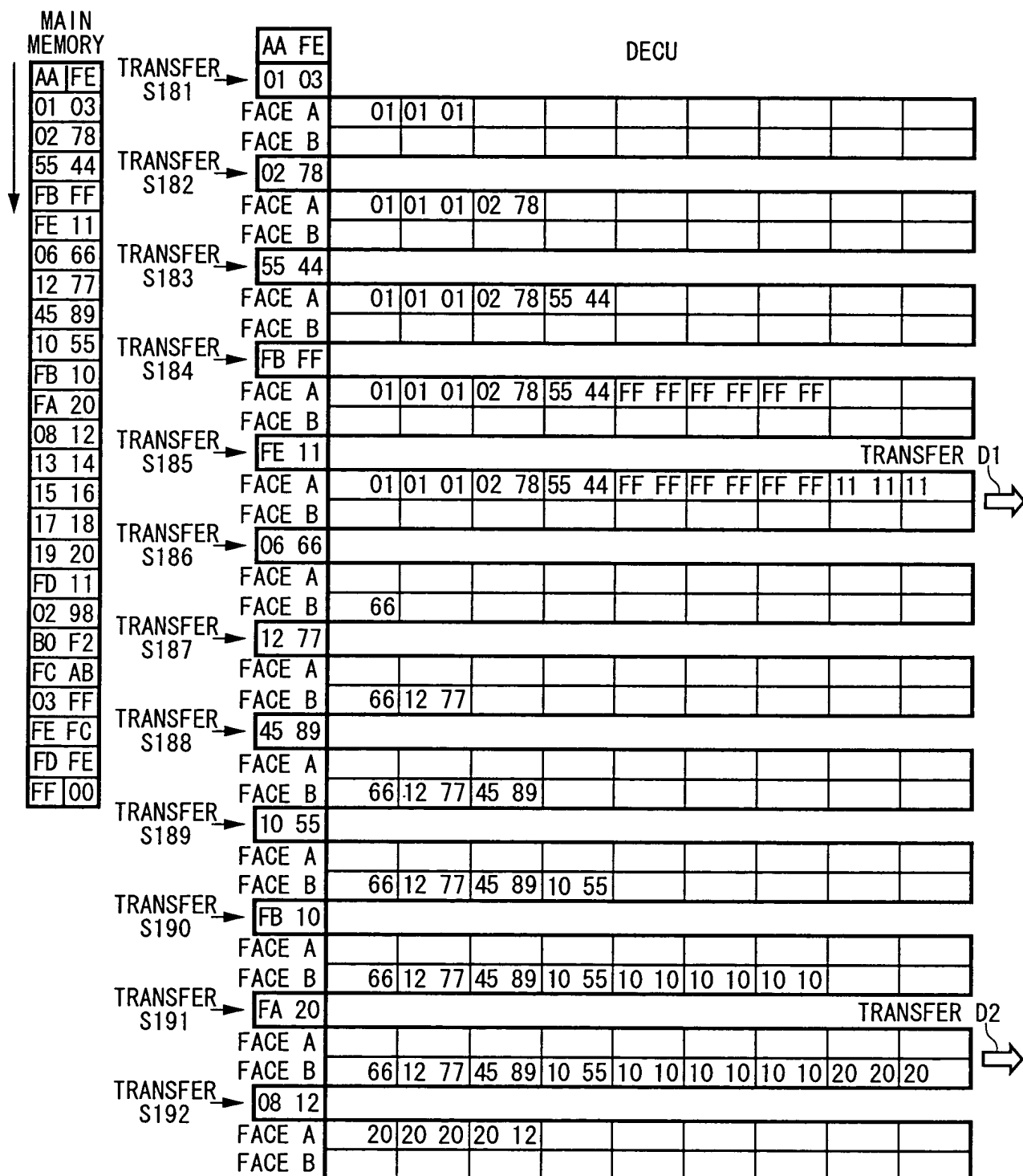NUMBER OF 1 LINE BUFFER: 15 BYTES

MAIN MEMORY

| FE 01 |
| 03 02 |
| 78 55 |
| 44 FB |
| FF FF |
| 11 06 |
| 66 12 |
| 77 45 |
| 89 10 |
| 55 FB |
| 10 FB |
| 20 08 |
| 12 13 |
| 14 15 |
| 16 17 |
| 18 19 |
| 20 FE |
| 11 02 |
| 98 B0 |
| F2 FC |
| AB 03 |
| FF FE |
| FC FD |
| FF FF |

DECU

TRANSFER S151 → FE 01
FACE A: 01 | 01 01
FACE B:

TRANSFER S152 → 03 02
FACE A: 01 | 01 01 | 02
FACE B:

TRANSFER S153 → 78 55
FACE A: 01 | 01 01 | 02 78 | 55
FACE B:

TRANSFER S154 → 44 FB
FACE A: 01 | 01 01 | 02 78 | 55 44
FACE B:

TRANSFER S155 → FF FF
FACE A: 01 | 01 01 | 02 78 | 55 44 | FF FF | FF FF | FF FF
FACE B:

TRANSFER S156 → 11 06
FACE A: 01 | 01 01 | 02 78 | 55 44 | FF FF | FF FF | FF FF | 11 11 → TRANSFER D1
FACE B:

TRANSFER S157 → 66 12
FACE A:
FACE B: 66 | 12

TRANSFER S158 → 77 45
FACE A:
FACE B: 66 | 12 77 | 45

TRANSFER S159 → 89 10
FACE A:
FACE B: 66 | 12 77 | 45 89 | 10

TRANSFER S160 → 55 FB
FACE A:
FACE B: 66 | 12 77 | 45 89 | 10 55

TRANSFER S161 → 10 FB
FACE A:
FACE B: 66 | 12 77 | 45 89 | 10 55 | 10 10 | 10 10 | 10 10

TRANSFER S162 → 20 08
FACE A: 20 | 20 20 | 20
FACE B: 66 | 12 77 | 45 89 | 10 55 | 10 10 | 10 10 | 10 10 | 20 20 → TRANSFER D2

⋮

FIG. 22

DECU

⋮

TRANSFER S163 → | 12 13 |

| FACE A | 20 | 20 | 20 | 20 | 12 | 13 | | | | |
| FACE B | | | | | | | | | | |

TRANSFER S164 → | 14 15 |

| FACE A | 20 | 20 | 20 | 20 | 12 | 13 | 14 | 15 | | |
| FACE B | | | | | | | | | | |

TRANSFER S165 → | 16 17 |

| FACE A | 20 | 20 | 20 | 20 | 12 | 13 | 14 | 15 | 16 | 17 |
| FACE B | | | | | | | | | | |

TRANSFER S166 → | 18 19 |

| FACE A | 20 | 20 | 20 | 20 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| FACE B | | | | | | | | | | | | |

TRANSFER S167 → | 20 FE |

| FACE A | 20 | 20 | 20 | 20 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | |
| FACE B | | | | | | | | | | | | | | |

TRANSFER S168 → | 11 02 |

| FACE A | 20 | 20 | 20 | 20 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 11 | 11 |
| FACE B | 11 | | | | | | | | | | | | | | |

TRANSFER D3 ⇒

TRANSFER S169 → | 98 B0 |

| FACE A | | | | | | | | | | |
| FACE B | 11 | 98 | B0 | | | | | | | |

TRANSFER S170 → | F2 FC |

| FACE A | | | | | | | | | | |
| FACE B | 11 | 98 | B0 | F2 | | | | | | |

TRANSFER S171 → | AB 03 |

| FACE A | | | | | | | | | | |
| FACE B | 11 | 98 | B0 | F2 | AB | AB | AB | AB | AB | |

TRANSFER S172 → | FF FE |

| FACE A | | | | | | | | | | |
| FACE B | 11 | 98 | B0 | F2 | AB | AB | AB | AB | AB | FF | FE |

TRANSFER S173 → | FC FD |

| FACE A | | | | | | | | | | |
| FACE B | 11 | 98 | B0 | F2 | AB | AB | AB | AB | AB | FF | FE | FC | FD |

TRANSFER S174 → | FE FF |

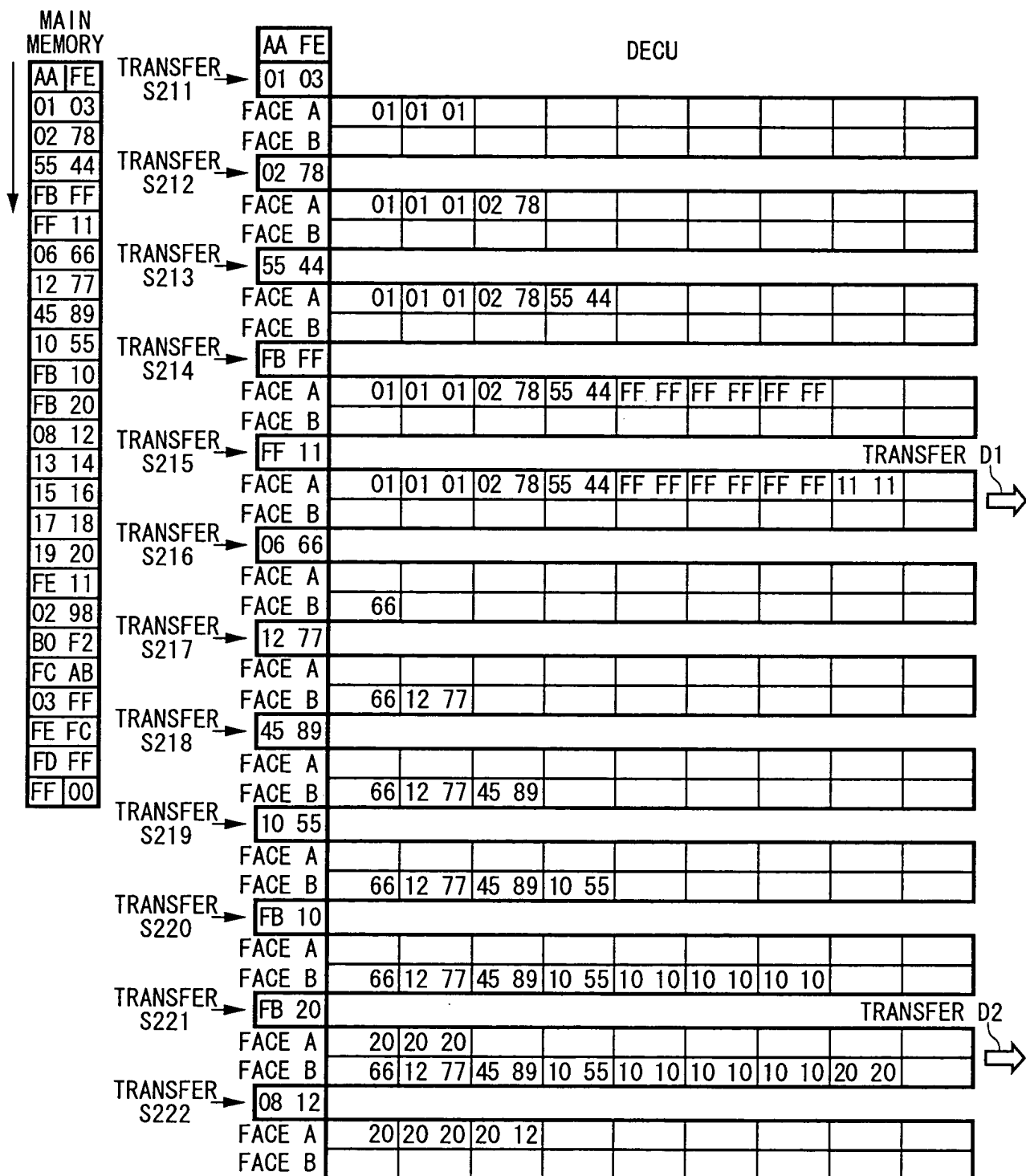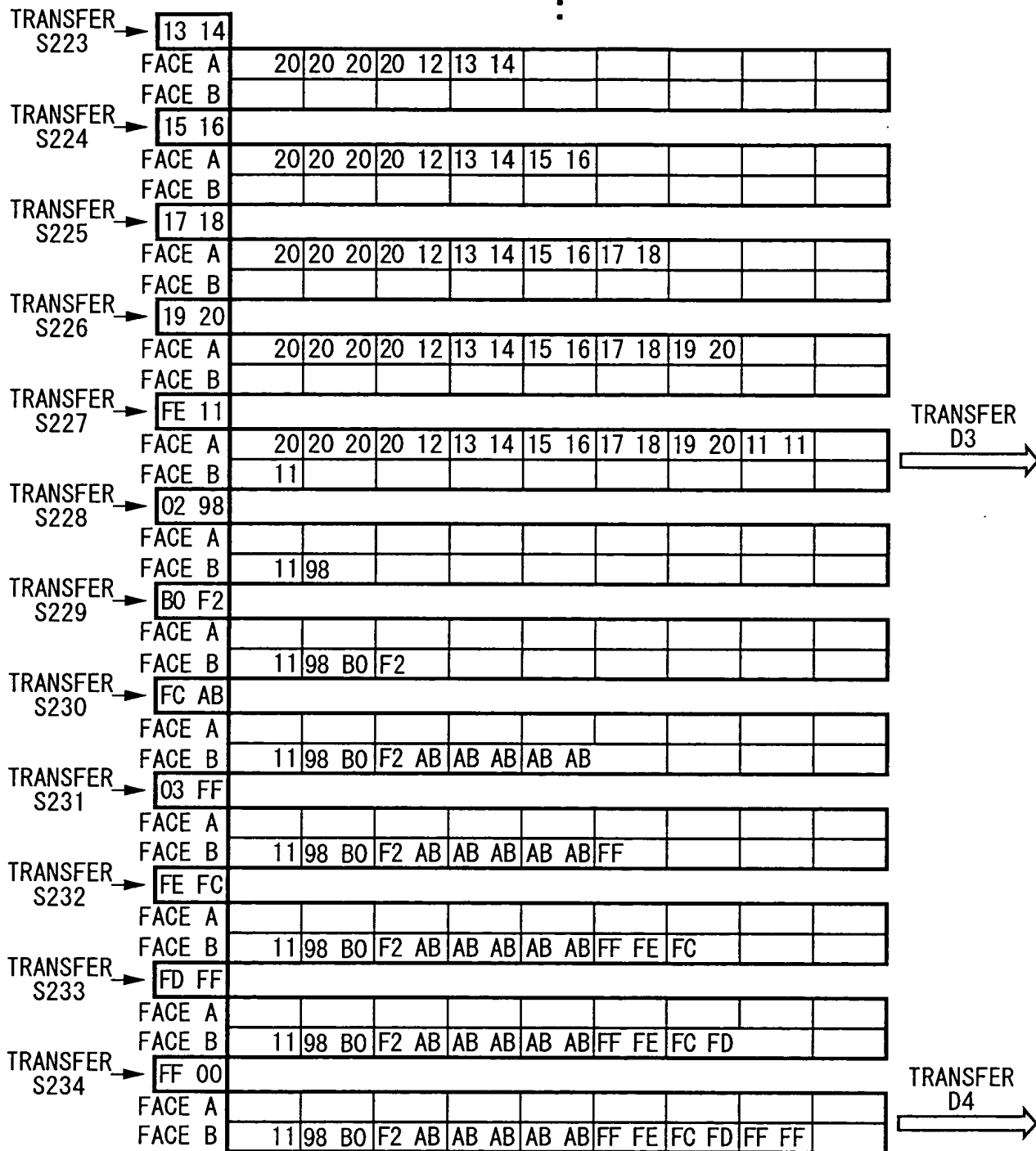| FACE A | | | | | | | | | | |
| FACE B | 11 | 98 | B0 | F2 | AB | AB | AB | AB | AB | FF | FE | FC | FD | FD | FF |

TRANSFER D4 ⇒

FIG. 23

SETTING CONDITION
VERTICAL LINE REARRANGEMENT PERFORMED
TOTAL NUMBER OF DEVELOPED BYTES: 60 BYTES (15×4)
NUMBER OF BYTES IN 1 LINE: 15 BYTES
NUMBER OF DEVELOPED LINES: 4 LINES

LOCAL MEMORY

FIG. 24A

D1 ↓

00 01	00 00	00 00	00 00	⋯	00 00
01 01	00 00	00 00	00 00	⋯	00 00
02 78	00 00	00 00	00 00	⋯	00 00
55 44	00 00	00 00	00 00	⋯	00 00
FF FF	00 00	00 00	00 00	⋯	00 00
FF FF	00 00	00 00	00 00	⋯	00 00
FF FF	00 00	00 00	00 00	⋯	00 00
11 11	00 00	00 00	00 00	⋯	00 00

FIG. 24B

D2 ↓

00 01	00 66	00 00	00 00	⋯	00 00
01 01	12 77	00 00	00 00	⋯	00 00
02 78	45 89	00 00	00 00	⋯	00 00
55 44	10 55	00 00	00 00	⋯	00 00
FF FF	10 10	00 00	00 00	⋯	00 00
FF FF	10 10	00 00	00 00	⋯	00 00
FF FF	10 10	00 00	00 00	⋯	00 00
11 11	20 20	00 00	00 00	⋯	00 00

FIG. 24C

D3 ↓

00 01	00 66	00 20	00 00	⋯	00 00
01 01	12 77	20 20	00 00	⋯	00 00
02 78	45 89	20 12	00 00	⋯	00 00
55 44	10 55	13 14	00 00	⋯	00 00
FF FF	10 10	15 16	00 00	⋯	00 00
FF FF	10 10	17 18	00 00	⋯	00 00
FF FF	10 10	19 20	00 00	⋯	00 00
11 11	20 20	11 11	00 00	⋯	00 00

FIG. 24D

D4 ↓

00 01	00 66	00 20	00 11	⋯	00 00
01 01	12 77	20 20	98 B0	⋯	00 00
02 78	45 89	20 12	F2 AB	⋯	00 00
55 44	10 55	13 14	AB AB	⋯	00 00
FF FF	10 10	15 16	AB AB	⋯	00 00
FF FF	10 10	17 18	FF FE	⋯	00 00
FF FF	10 10	19 20	FC FD	⋯	00 00
11 11	20 20	11 11	FF FF	⋯	00 00

OPERATING CONDITION
MAIN MEMORY SIDE: STARTING ADDRESS OF RUN LENGTH DATA IS AN ODD ADDRESS
LOCAL MEMORY SIDE: STARTING ADDRESS OF IMAGE DATA IS AN ODD ADDRESS
NUMBER OF 1 LINE BUFFER: 16 BYTES

MAIN MEMORY

AA	FE
01	03
02	78
55	44
FB	FF
FE	11
06	66
12	77
45	89
10	55
FB	10
FA	20
08	12
13	14
15	16
17	18
19	20
FD	11
02	98
B0	F2
FC	AB
03	FF
FE	FC
FD	FE
FF	00

DECU

TRANSFER S181 → AA FE / 01 03
FACE A: 01 | 01 01
FACE B:

TRANSFER S182 → 02 78
FACE A: 01 | 01 01 | 02 78
FACE B:

TRANSFER S183 → 55 44
FACE A: 01 | 01 01 | 02 78 | 55 44
FACE B:

TRANSFER S184 → FB FF
FACE A: 01 | 01 01 | 02 78 | 55 44 | FF FF | FF FF | FF FF
FACE B:

TRANSFER S185 → FE 11
FACE A: 01 | 01 01 | 02 78 | 55 44 | FF FF | FF FF | FF FF | 11 11 | 11   TRANSFER D1 ⇒
FACE B:

TRANSFER S186 → 06 66
FACE A:
FACE B: 66

TRANSFER S187 → 12 77
FACE A:
FACE B: 66 | 12 77

TRANSFER S188 → 45 89
FACE A:
FACE B: 66 | 12 77 | 45 89

TRANSFER S189 → 10 55
FACE A:
FACE B: 66 | 12 77 | 45 89 | 10 55

TRANSFER S190 → FB 10
FACE A:
FACE B: 66 | 12 77 | 45 89 | 10 55 | 10 10 | 10 10 | 10 10

TRANSFER S191 → FA 20   TRANSFER D2 ⇒
FACE A:
FACE B: 66 | 12 77 | 45 89 | 10 55 | 10 10 | 10 10 | 10 10 | 20 20 | 20

TRANSFER S192 → 08 12
FACE A: 20 | 20 20 | 20 12
FACE B:

⋮

FIG. 25

DECU

:

TRANSFER S193 → | 13 14 |

| FACE A | 20 | 20 20 | 20 12 | 13 14 | | | | | |
| FACE B | | | | | | | | | |

TRANSFER S194 → | 15 16 |

| FACE A | 20 | 20 20 | 20 12 | 13 14 | 15 16 | | | | |
| FACE B | | | | | | | | | |

TRANSFER S195 → | 17 18 |

| FACE A | 20 | 20 20 | 20 12 | 13 14 | 15 16 | 17 18 | | | |
| FACE B | | | | | | | | | |

TRANSFER S196 → | 19 20 |

| FACE A | 20 | 20 20 | 20 12 | 13 14 | 15 16 | 17 18 | 19 20 | | |
| FACE B | | | | | | | | | |

TRANSFER S197 → | FD 11 |

| FACE A | 20 | 20 20 | 20 12 | 13 14 | 15 16 | 17 18 | 19 20 | 11 11 | 11 |
| FACE B | 11 | | | | | | | | |

TRANSFER D3 →

TRANSFER S198 → | 02 98 |

| FACE A | | | | | | | | | |
| FACE B | 11 | 98 | | | | | | | |

TRANSFER S199 → | B0 F2 |

| FACE A | | | | | | | | | |
| FACE B | 11 | 98 | B0 | F2 | | | | | |

TRANSFER S200 → | FC AB |

| FACE A | | | | | | | | | |
| FACE B | 11 | 98 | B0 | F2 | AB | AB AB | AB AB | | |

TRANSFER S201 → | 03 FF |

| FACE A | | | | | | | | | |
| FACE B | 11 | 98 | B0 | F2 | AB | AB AB | AB AB | FF | |

TRANSFER S202 → | FE FC |

| FACE A | | | | | | | | | |
| FACE B | 11 | 98 | B0 | F2 | AB | AB AB | AB AB | FF FE | FC |

TRANSFER S203 → | FD FE |

| FACE A | | | | | | | | | |
| FACE B | 11 | 98 | B0 | F2 | AB | AB AB | AB AB | FF FE | FC FD |

TRANSFER S204 → | FF 00 |

| FACE A | | | | | | | | | |
| FACE B | 11 | 98 | B0 | F2 | AB | AB AB | AB AB | FF FE | FC FD | FF FF | FF |

TRANSFER D4 →

FIG. 26

OPERATING CONDITION
MAIN MEMORY SIDE: STARTING ADDRESS OF RUN LENGTH DATA IS AN ODD ADDRESS
LOCAL MEMORY SIDE: STARTING ADDRESS OF IMAGE DATA IS AN ODD ADDRESS
NUMBER OF 1 LINE BUFFER: 15 BYTES

MAIN MEMORY:

AA	FE
01	03
02	78
55	44
FB	FF
FF	11
06	66
12	77
45	89
10	55
FB	10
FB	20
08	12
13	14
15	16
17	18
19	20
FE	11
02	98
B0	F2
FC	AB
03	FF
FE	FC
FD	FF
FF	00

DECU

TRANSFER S211 → AA FE / 01 03

FACE A	01	01 01						
FACE B								

TRANSFER S212 → 02 78

FACE A	01	01 01	02 78					
FACE B								

TRANSFER S213 → 55 44

FACE A	01	01 01	02 78	55 44				
FACE B								

TRANSFER S214 → FB FF

FACE A	01	01 01	02 78	55 44	FF FF	FF FF	FF FF	
FACE B								

TRANSFER S215 → FF 11   TRANSFER D1

FACE A	01	01 01	02 78	55 44	FF FF	FF FF	FF FF	11 11
FACE B								

TRANSFER S216 → 06 66

FACE A								
FACE B	66							

TRANSFER S217 → 12 77

FACE A								
FACE B	66	12 77						

TRANSFER S218 → 45 89

FACE A								
FACE B	66	12 77	45 89					

TRANSFER S219 → 10 55

FACE A								
FACE B	66	12 77	45 89	10 55				

TRANSFER S220 → FB 10

FACE A								
FACE B	66	12 77	45 89	10 55	10 10	10 10	10 10	

TRANSFER S221 → FB 20   TRANSFER D2

FACE A	20	20 20						
FACE B	66	12 77	45 89	10 55	10 10	10 10	10 10	20 20

TRANSFER S222 → 08 12

FACE A	20	20 20	20 12					
FACE B								

⋮

FIG. 27

DECU

⋮

TRANSFER S223 → | 13 14 |
FACE A: | 20 | 20 | 20 | 20 | 12 | 13 14 | | | | | |
FACE B: | | | | | | | | | | | |

TRANSFER S224 → | 15 16 |
FACE A: | 20 | 20 | 20 | 20 | 12 | 13 14 | 15 16 | | | | |
FACE B: | | | | | | | | | | | |

TRANSFER S225 → | 17 18 |
FACE A: | 20 | 20 | 20 | 20 | 12 | 13 14 | 15 16 | 17 18 | | | |
FACE B: | | | | | | | | | | | |

TRANSFER S226 → | 19 20 |
FACE A: | 20 | 20 | 20 | 20 | 12 | 13 14 | 15 16 | 17 18 | 19 20 | | |
FACE B: | | | | | | | | | | | |

TRANSFER S227 → | FE 11 |
FACE A: | 20 | 20 | 20 | 20 | 12 | 13 14 | 15 16 | 17 18 | 19 20 | 11 11 | | TRANSFER D3 ⟹
FACE B: | 11 | | | | | | | | | | |

TRANSFER S228 → | 02 98 |
FACE A: | | | | | | | | | | | |
FACE B: | 11 | 98 | | | | | | | | | |

TRANSFER S229 → | B0 F2 |
FACE A: | | | | | | | | | | | |
FACE B: | 11 | 98 | B0 | F2 | | | | | | | |

TRANSFER S230 → | FC AB |
FACE A: | | | | | | | | | | | |
FACE B: | 11 | 98 | B0 | F2 AB | AB AB | AB AB | | | | | |

TRANSFER S231 → | 03 FF |
FACE A: | | | | | | | | | | | |
FACE B: | 11 | 98 | B0 | F2 AB | AB AB | AB AB | FF | | | | |

TRANSFER S232 → | FE FC |
FACE A: | | | | | | | | | | | |
FACE B: | 11 | 98 | B0 | F2 AB | AB AB | AB AB | FF FE | FC | | | |

TRANSFER S233 → | FD FF |
FACE A: | | | | | | | | | | | |
FACE B: | 11 | 98 | B0 | F2 AB | AB AB | AB AB | FF FE | FC FD | | | |

TRANSFER S234 → | FF 00 |
FACE A: | | | | | | | | | | | |
FACE B: | 11 | 98 | B0 | F2 AB | AB AB | AB AB | FF FE | FC FD | FF FF | | | TRANSFER D4 ⟹

FIG. 28

SETTING CONDITION
VERTICAL LINE REARRANGEMENT PERFORMED
TOTAL NUMBER OF DEVELOPED BYTES: 64 BYTES (16 × 4)
NUMBER OF BYTES IN 1 LINE: 16 BYTES
NUMBER OF DEVELOPED LINES: 4 LINES

LOCAL MEMORY

FIG. 29A

D1↓ IMAGE 1

01 01	00 00	00 00	00 00	...	00 00
01 02	00 00	00 00	00 00	...	00 00
78 55	00 00	00 00	00 00	...	00 00
44 FF	00 00	00 00	00 00	...	00 00
FF FF	00 00	00 00	00 00	...	00 00
FF FF	00 00	00 00	00 00	...	00 00
FF 11	00 00	00 00	00 00	...	00 00
11 11	00 00	00 00	00 00	...	00 00

FIG. 29B

D2↓ IMAGE 2

66 12	00 00	00 00	00 00	...	00 00
77 45	00 00	00 00	00 00	...	00 00
89 10	00 00	00 00	00 00	...	00 00
55 10	00 00	00 00	00 00	...	00 00
10 10	00 00	00 00	00 00	...	00 00
10 10	00 00	00 00	00 00	...	00 00
10 20	00 00	00 00	00 00	...	00 00
20 20	00 00	00 00	00 00	...	00 00

FIG. 29C

D3↓ IMAGE 1

01 01	20 20	00 00	00 00	...	00 00
01 02	20 20	00 00	00 00	...	00 00
78 55	12 13	00 00	00 00	...	00 00
44 FF	14 15	00 00	00 00	...	00 00
FF FF	16 17	00 00	00 00	...	00 00
FF FF	18 19	00 00	00 00	...	00 00
FF 11	20 11	00 00	00 00	...	00 00
11 11	11 11	00 00	00 00	...	00 00

FIG. 29D

D4↓ IMAGE 2

66 12	11 98	00 00	00 00	...	00 00
77 45	B0 F2	00 00	00 00	...	00 00
89 10	AB AB	00 00	00 00	...	00 00
55 10	AB AB	00 00	00 00	...	00 00
10 10	AB FF	00 00	00 00	...	00 00
10 10	FE FC	00 00	00 00	...	00 00
10 20	FD FF	00 00	00 00	...	00 00
20 20	FF FF	00 00	00 00	...	00 00

SETTING CONDITION
NO VERTICAL LINE REARRANGEMENT
TOTAL NUMBER OF DEVELOPED BYTES: 64 BYTES (16 × 4)
NUMBER OF BYTES IN 1 LINE: 16 BYTES
NUMBER OF DEVELOPED LINES: 4 LINES

LOCAL MEMORY

IMAGE 1

FIG. 30A D1 →

01 01	01 02	78 55	44 FF
FF FF	FF FF	FF 11	11 11
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00

IMAGE 2

FIG. 30B D2 →

66 12	77 45	89 10	55 10
10 10	10 10	10 20	20 20
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00

IMAGE 1

FIG. 30C D3 →

01 01	01 02	78 55	44 FF
FF FF	FF FF	FF 11	11 11
20 20	20 20	12 13	14 15
16 17	18 19	20 11	11 11
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00

IMAGE 2

FIG. 30D D4 →

66 12	77 45	89 10	55 10
10 10	10 10	10 20	20 20
11 98	B0 F2	AB AB	AB AB
AB FF	FE FC	FD FF	FF FF
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00

SETTING CONDITION
VERTICAL LINE REARRANGEMENT PERFORMED
TOTAL NUMBER OF DEVELOPED BYTES: 60 BYTES (15 × 4)
NUMBER OF BYTES IN 1 LINES: 15 BYTES
NUMBER OF DEVELOPED LINES: 4 LINES

LOCAL MEMORY

FIG. 31A — D1 ↓ IMAGE 1

01 01	00 00	00 00	00 00	⋯	00 00
01 02	00 00	00 00	00 00	⋯	00 00
78 55	00 00	00 00	00 00	⋯	00 00
44 FF	00 00	00 00	00 00	⋯	00 00
FF FF	00 00	00 00	00 00	⋯	00 00
FF FF	00 00	00 00	00 00	⋯	00 00
FF 11	00 00	00 00	00 00	⋯	00 00
11 00	00 00	00 00	00 00	⋯	00 00

FIG. 31B — D2 ↓ IMAGE 2

66 12	00 00	00 00	00 00	⋯	00 00
77 45	00 00	00 00	00 00	⋯	00 00
89 10	00 00	00 00	00 00	⋯	00 00
55 10	00 00	00 00	00 00	⋯	00 00
10 10	00 00	00 00	00 00	⋯	00 00
10 10	00 00	00 00	00 00	⋯	00 00
10 20	00 00	00 00	00 00	⋯	00 00
20 00	00 00	00 00	00 00	⋯	00 00

FIG. 31C — D3 ↓ IMAGE 1

01 01	20 20	00 00	00 00	⋯	00 00
01 02	20 20	00 00	00 00	⋯	00 00
78 55	12 13	00 00	00 00	⋯	00 00
44 FF	14 15	00 00	00 00	⋯	00 00
FF FF	16 17	00 00	00 00	⋯	00 00
FF FF	18 19	00 00	00 00	⋯	00 00
FF 11	20 11	00 00	00 00	⋯	00 00
11 00	11 00	00 00	00 00	⋯	00 00

FIG. 31D — D4 ↓ IMAGE 2

66 12	11 98	00 00	00 00	⋯	00 00
77 45	B0 F2	00 00	00 00	⋯	00 00
89 10	AB AB	00 00	00 00	⋯	00 00
55 10	AB AB	00 00	00 00	⋯	00 00
10 10	AB FF	00 00	00 00	⋯	00 00
10 10	FE FC	00 00	00 00	⋯	00 00
10 20	FD FF	00 00	00 00	⋯	00 00
20 00	FF 00	00 00	00 00	⋯	00 00

SETTING CONDITION
NO VERTICAL LINE REARRANGEMENT
TOTAL NUMBER OF DEVELOPED BYTES: 60 BYTES (15×4)
NUMBER OF BYTES IN 1 LINE: 15 BYTES
NUMBER OF DEVELOPED LINES: 4 LINES

LOCAL MEMORY

IMAGE 1

FIG. 32A   D1→

01 01	01 02	78 55	44 FF
FF FF	FF FF	FF 11	11 00
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00

IMAGE 2

FIG. 32B   D2→

66 12	77 45	89 10	55 10
10 10	10 10	10 20	20 00
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00

IMAGE 1

FIG. 32C

01 01	01 02	78 55	44 FF
FF FF	FF FF	FF 11	11 00
20 20	20 20	12 13	14 15	← D3
16 17	18 19	20 11	11 00
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00

IMAGE 2

FIG. 32D

66 12	77 45	89 10	55 10
10 10	10 10	10 20	20 00
11 98	B0 F2	AB AB	AB AB	← D4
AB FF	FE FC	FD FF	FF 00
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00
00 00	00 00	00 00	00 00

SETTING CONDITION
VERTICAL LINE REARRANGEMENT PERFORMED
TOTAL NUMBER OF DEVELOPED BYTES: 64 BYTES (16 × 4)
NUMBER OF BYTES IN 1 LINE: 16 BYTES
NUMBER OF DEVELOPED LINES: 4 LINES

LOCAL MEMORY

FIG. 33A — D1 ↓ IMAGE 1

00	01	00 00	00 00	00 00	···	00 00
01	01	00 00	00 00	00 00	···	00 00
02	78	00 00	00 00	00 00	···	00 00
55	44	00 00	00 00	00 00	···	00 00
FF	FF	00 00	00 00	00 00	···	00 00
FF	FF	00 00	00 00	00 00	···	00 00
FF	FF	00 00	00 00	00 00	···	00 00
11	11	00 00	00 00	00 00	···	00 00
11	00	00 00	00 00	00 00	···	00 00

FIG. 33B — D2 ↓ IMAGE 2

00	66	00 00	00 00	00 00	···	00 00
12	77	00 00	00 00	00 00	···	00 00
45	89	00 00	00 00	00 00	···	00 00
10	55	00 00	00 00	00 00	···	00 00
10	10	00 00	00 00	00 00	···	00 00
10	10	00 00	00 00	00 00	···	00 00
10	10	00 00	00 00	00 00	···	00 00
20	20	00 00	00 00	00 00	···	00 00
20	00	00 00	00 00	00 00	···	00 00

FIG. 33C — D3 ↓ IMAGE 1

00	01	00 20	00 00	00 00	···	00 00
01	01	20 20	00 00	00 00	···	00 00
02	78	20 12	00 00	00 00	···	00 00
55	44	13 14	00 00	00 00	···	00 00
FF	FF	15 16	00 00	00 00	···	00 00
FF	FF	17 18	00 00	00 00	···	00 00
FF	FF	19 20	00 00	00 00	···	00 00
11	11	11 11	00 00	00 00	···	00 00
11	00	11 00	00 00	00 00	···	00 00

FIG. 33D — D4 ↓ IMAGE 2

00	66	00 11	00 00	00 00	···	00 00
12	77	98 B0	00 00	00 00	···	00 00
45	89	F2 AB	00 00	00 00	···	00 00
10	55	AB AB	00 00	00 00	···	00 00
10	10	AB AB	00 00	00 00	···	00 00
10	10	FF FE	00 00	00 00	···	00 00
10	10	FC FD	00 00	00 00	···	00 00
20	20	FF FF	00 00	00 00	···	00 00
20	00	FF 00	00 00	00 00	···	00 00

SETTING CONDITION
VERTICAL LINE REARRANGEMENT PERFORMED
TOTAL NUMBER OF DEVELOPED BYTES: 60 BYTES (15 × 4)
NUMBER OF BYTES IN 1 LINE: 15 BYTES
NUMBER OF DEVELOPED LINES: 4 LINES

LOCAL MEMORY

FIG. 34A

D1↓   IMAGE 1

00	01	00	00	00	00	00	00	···	00	00
01	01	00	00	00	00	00	00	···	00	00
02	78	00	00	00	00	00	00	···	00	00
55	44	00	00	00	00	00	00	···	00	00
FF	FF	00	00	00	00	00	00	···	00	00
FF	FF	00	00	00	00	00	00	···	00	00
FF	FF	00	00	00	00	00	00	···	00	00
11	11	00	00	00	00	00	00	···	00	00

FIG. 34B

D2↓   IMAGE 2

00	66	00	00	00	00	00	00	···	00	00
12	77	00	00	00	00	00	00	···	00	00
45	89	00	00	00	00	00	00	···	00	00
10	55	00	00	00	00	00	00	···	00	00
10	10	00	00	00	00	00	00	···	00	00
10	10	00	00	00	00	00	00	···	00	00
10	10	00	00	00	00	00	00	···	00	00
20	20	00	00	00	00	00	00	···	00	00

FIG. 34C

D3↓   IMAGE 1

00	01	00	20	00	00	00	00	···	00	00
01	01	20	20	00	00	00	00	···	00	00
02	78	20	12	00	00	00	00	···	00	00
55	44	13	14	00	00	00	00	···	00	00
FF	FF	15	16	00	00	00	00	···	00	00
FF	FF	17	18	00	00	00	00	···	00	00
FF	FF	19	20	00	00	00	00	···	00	00
11	11	11	11	00	00	00	00	···	00	00

FIG. 34D

D4↓   IMAGE 2

00	66	00	11	00	00	00	00	···	00	00
12	77	98	B0	00	00	00	00	···	00	00
45	89	F2	AB	00	00	00	00	···	00	00
10	55	AB	AB	00	00	00	00	···	00	00
10	10	AB	AB	00	00	00	00	···	00	00
10	10	FF	FE	00	00	00	00	···	00	00
10	10	FC	FD	00	00	00	00	···	00	00
20	20	FF	FF	00	00	00	00	···	00	00

OPERATING CONDITION
MAIN MEMORY SIDE: STARTING ADDRESS OF RUN LENGTH DATA IS AN EVEN ADDRESS
LOCAL MEMORY SIDE: STARTING ADDRESS OF IMAGE DATA IS AN EVEN ADDRESS
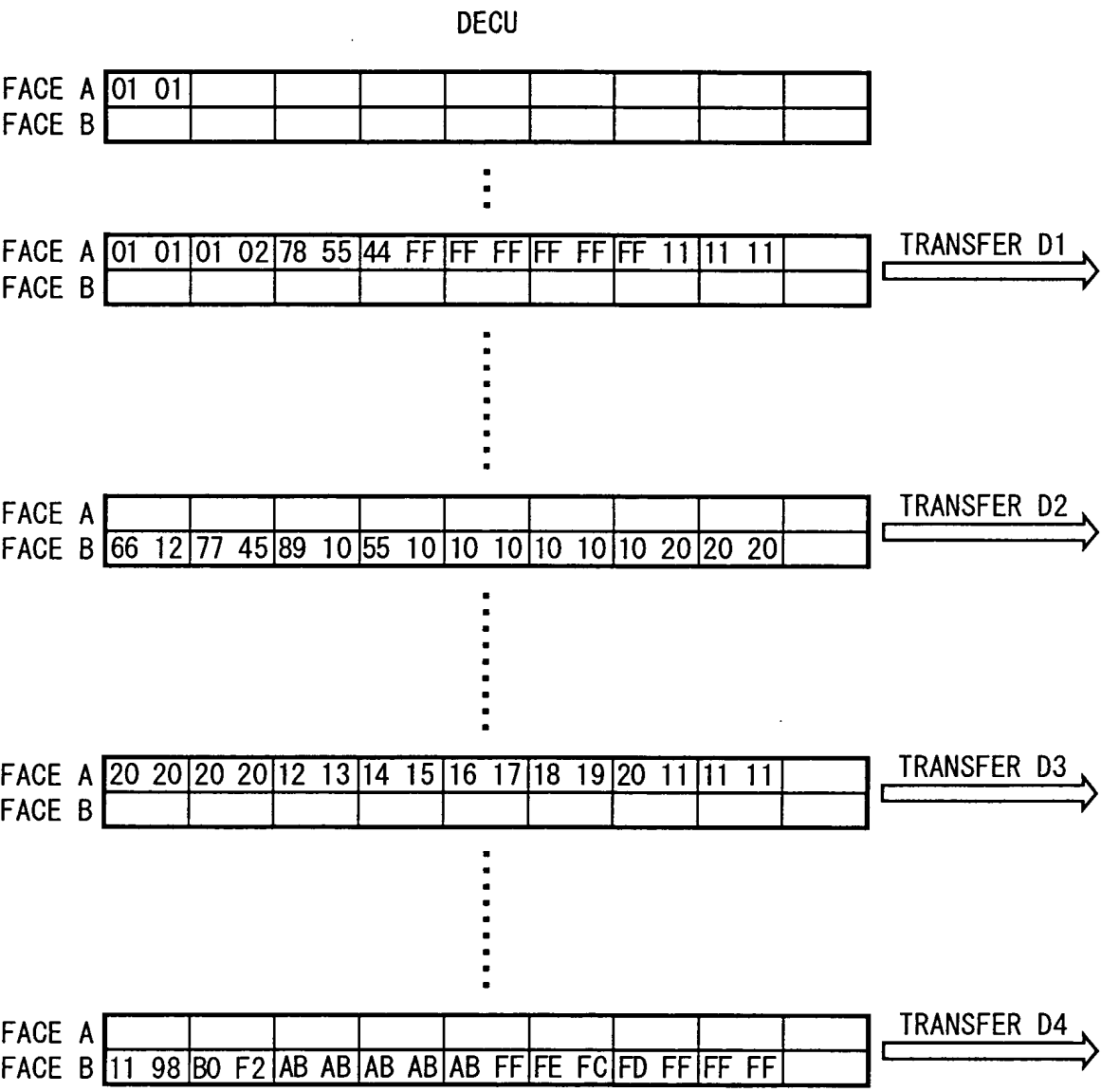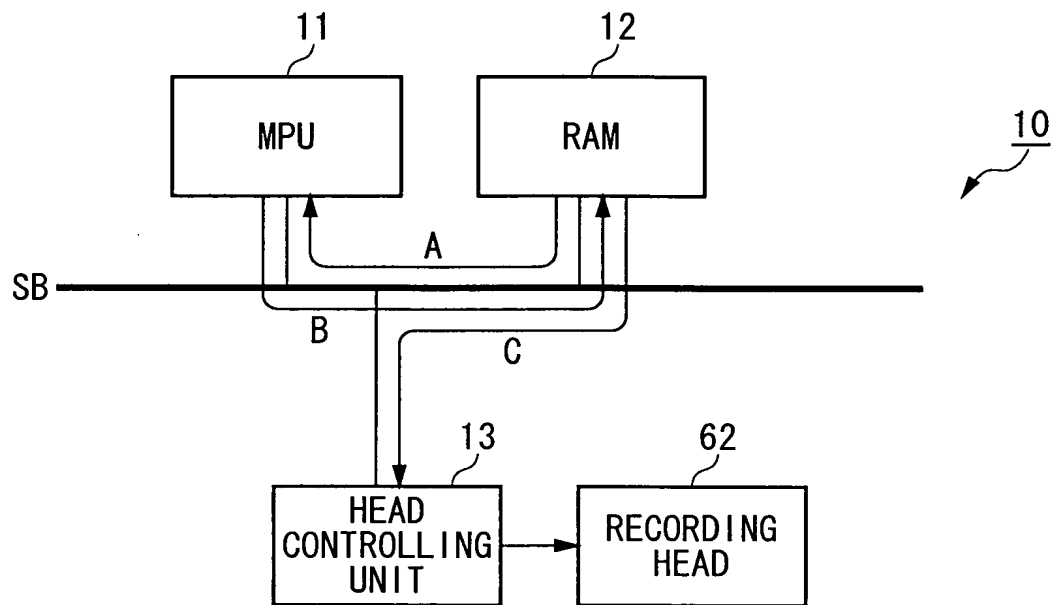NUMBER OF 1 LINE BUFFER: 16 BYTES

DECU

FACE A | 01 01 | | | | | | |
FACE B | | | | | | | |

⋮

FACE A | 01 01 | 01 02 | 78 55 | 44 FF | FF FF | FF FF | FF 11 | 11 11 | → TRANSFER D1
FACE B | | | | | | | |

⋮

FACE A | | | | | | | | → TRANSFER D2
FACE B | 66 12 | 77 45 | 89 10 | 55 10 | 10 10 | 10 10 | 10 20 | 20 20 |

⋮

FACE A | 20 20 | 20 20 | 12 13 | 14 15 | 16 17 | 18 19 | 20 11 | 11 11 | → TRANSFER D3
FACE B | | | | | | | |

⋮

FACE A | | | | | | | | → TRANSFER D4
FACE B | 11 98 | B0 F2 | AB AB | AB AB | AB FF | FE FC | FD FF | FF FF |

FIG. 35

FIG. 36